

217/782-2113

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE

Dynegy Midwest Generation, Inc.  
Attention: Natalie Locke  
2828 North Monroe Street  
Decatur, Illinois 62526-3269

<u>Application No.:</u> 95090053	<u>ID No.:</u> 125804AAB
<u>Applicant's Designation:</u> Havana	<u>Date Received:</u> September 7, 1995
<u>Operation of:</u> Havana Power Station	
<u>Date Issued:</u>	<u>Expiration Date</u> <sup>1</sup> : "5 years duration"
<u>Source Location:</u> 15260 North State Route 78, Havana, Mason County	
<u>Responsible Official:</u> A. Kirk Millis, Plant Manager	

This permit is hereby granted to the above-designated Permittee to operate an electrical power generation station, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

The current federal Acid Rain Permit issued to Dynegy Midwest Generation, Inc. by the Illinois EPA for this source is incorporated into this CAAPP permit (See Attachment 5).

If you have any questions concerning this permit, please contact the Utility Unit at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

cc: Illinois EPA, FOS, Region 3  
USEPA

<sup>1</sup>Except as addressed in Condition 8.7 of this permit.

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1.0 Introduction

1.1 Source Identification

Havana Power Station  
15260 North State Route 78  
Havana, Illinois 62644  
309-543-2227

I.D. No.: 125804AAB  
Office of Regulatory Information Systems (ORIS) Code: 891  
Standard Industrial Classification Code: 4911 (Electric Services)

1.2 Owner/Parent Company

Dynegy Midwest Generation, Inc.  
2828 North Monroe Street  
Decatur, Illinois 62526

1.3 Operator

Dynegy Midwest Generation, Inc.  
2828 North Monroe Street  
Decatur, Illinois 62526

Rick Diericx / Director-Operations Environmental Compliance  
217/872-2354

1.4 General Source Description

At its Havana Power Station, Dynegy Midwest Generation operates eight residual oil fired boilers and one coal-fired boiler and associated steam turbine generators to produce electricity.

1.5 Title I Conditions

This CAAPP permit contains certain conditions for units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM), and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of Illinois' Environmental Protection Act (Act). These "Title I conditions" within this permit are specifically designated as "T1," if they reflect requirements established in construction permits issued for this source, "T1R" if they revise requirements established in such construction permits, or "T1N" if they are newly established in this CAAPP permit. These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

## 2.0 LIST OF ABBREVIATIONS AND ACRONYMS USED IN THIS PERMIT

acfm	actual cubic feet per minute
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dcfm	dry cubic feet per minute
EGU	Electrical Generating Unit(s)
Gal	Gallon
ESP	Electrostatic Precipitator
°F	degrees Fahrenheit
FGC	Flue Gas Conditioning
ft	foot
ft <sup>3</sup>	cubic foot
HAP	Hazardous Air Pollutant
HP	horsepower
hr	Hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
°K	degrees Kelvin
Kg	kilogram
kW	Kilowatts
lb	Pound
LNB	Low NO <sub>x</sub> Burners
m	meter
MACT	Maximum Achievable Control Technology
mmBtu	million British thermal units
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards (40 CFR Part 60)
NSSA	New Source Set-Aside
ORIS	Office of Regulatory Information System
OFA	Over-Fire Air
OM	organic material
PM	Particulate Matter
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration (40 CFR 52.21)
psia	pounds per square inch absolute

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RMP	Risk Management Plan
SO <sub>2</sub>	Sulfur Dioxide
T	ton (2000 pounds)
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOC or VOM	volatile organic compounds or volatile organic material
VOL	volatile organic liquid
yr	year

3.0 CONDITIONS FOR INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a) (1) and 201.211, as follows:

Ethylene Glycol Storage Tanks

- 3.1.2 Activities that are insignificant activities based upon maximum emissions of regulated air pollutants in the absence of air pollution control equipment, pursuant to 35 IAC 201.210(a) (2) or (a) (3), as follows:

Sulfuric acid storage tanks  
Parking lots and paved and unpaved roads  
Soil Vapor Extraction System

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a) (4) through (18), as follows:

- a. Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood;
- b. Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons that are not used to store gasoline or any HAP;
- c. Storage tanks of virgin or rerefined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuels;
- d. Gas turbines and stationary reciprocating internal combustion engines of between 112 KW and 1,118 KW (150 and 1,500 horsepower) power output that are emergency or standby units;
- e. Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous

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caustic solutions that do not have an organic solvent mixed with such materials; and

- f. Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions.

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

Note: The heating of the coal-fired boiler with auxiliary fuel during maintenance and repair of the boiler is considered an insignificant activity under 35 IAC 201.210(b)(29) and is generally not addressed by the unit-specific conditions of this permit for the boiler. Notwithstanding such status as an insignificant activity, the opacity of the exhaust from the boiler is at all times subject to applicable opacity standards and the unit-specific conditions of this permit for the boiler that relate to opacity are applicable during maintenance and repair of the boiler.

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182.
- 3.2.2 For each particulate matter process emission unit, other than the units excluded by 35 IAC 212.323 or 212.681, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.



3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Emission Control Equipment	Ref.*
Boilers 1 through 8	Residual Oil Fired Boilers Nominal rating 50 MW each (1949)	None	7.1
Boiler 9	Babcock & Wilcox Radiant Coal-Fired Boiler 447 MW Nominal Rating (1978)	Overfire Air System, Low NOx burners, In-duct Selective Catalytic Reduction System and ESP with Flue Gas Conditioning	7.2
Auxiliary Boiler	Natural Gas and Distillate Oil Fired Boiler Nominal 99 mmBtu/hr (1994)	None	7.3
Coal Handling Equipment	Coal Receiving, Transfer and Storage Operations	Enclosures and Covers, Dust Suppressant Application and Dust Collection Devices	7.4
Coal Processing Equipment	Coal Crushing Operations	Enclosures and Covers, Dust Suppressant Application and Dust Collection Devices	7.5
Gasoline Storage Tank	Above Ground Storage Tank Capacity 1,000 gallons	Permanent Submerged Loading Pipe	7.6
Fly Ash Equipment	Transfer System, Silo and Loadout Operation	Dust Collection Devices, Enclosures and Covers	7.7

\*Reference to the Unit Specific Conditions in Section 7 of this permit.

5.0 Overall Source Conditions

5.1 Applicability of Clean Air Act Program (CAAPP)

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of SO<sub>2</sub>, CO, NO<sub>x</sub>, VOM, PM and HAP emissions.
- 5.1.2 This permit is issued based on the source requiring a CAAPP permit as an "affected source" for purposes of Acid Deposition Control, Title IV of the Clean Air Act.

5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
  - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally towards the zenith (i.e., overhead) at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
  - b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

Note: As a new fuel combustion emission unit with heat input capacity greater than 250 mmBTU/hr, the coal-fired boiler at this source (Boiler 9) is subject to 35 IAC 212.122, which sets a limit on opacity of 20 percent.

5.2.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, including the following:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service,

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repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be appropriately certified by an approved technician certification program pursuant to 40 CFR 82.161.

#### 5.2.4 Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the Chemical Accident Prevention Provisions in 40 CFR Part 68, then the owner or operator shall submit:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all applicable requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by Condition 9.8.

Note: This condition is imposed in this permit pursuant to 40 CFR 68.215(a).

#### 5.2.5 Episode Action Plan

- a. Pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If an operational change occurs at the source that invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.

#### 5.2.6 Compliance Assurance Monitoring (CAM) Plan

Pursuant to 40 CFR 64.5, if the Permittee submits a request for a significant revision of this permit that is applicable to an affected large pollutant-specific emissions unit, as defined by 40 CFR 64.1, 64.2 and

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64.5(a), (e.g., a coal-fired boiler as it emits particulate matter), the Permittee shall submit as part of such application the information required under 40 CFR 64.4 for a CAM plan.

Note: As provided by 40 CFR 64.5(a)(1), the Permittee was not required to submit CAM plans for affected large pollutant-specific emissions units with the application for this permit because a complete CAAPP application was submitted before April 20, 1998. For all pollutant-specific emissions units that meet the criteria in 40 CFR 64.42(a), so as to be subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the source must submit the information required under 40 CFR 64.4 as part of the application for renewal of this permit.

#### 5.2.7 Future Emission Standards

- a. Should this source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC Subtitle B after the date issued of this permit, the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance or otherwise demonstrate initial compliance as provided by such regulation. Following the submittal of such a compliance certification or initial compliance demonstration, the Permittee shall address the applicable requirement of such regulation(s) as part of the annual compliance certification required by Condition 9.8.

Note: This permit may also have to be revised or reopened to address such newly applicable regulations, as provided by Section 39.5(15)(a) of the Act. (See Condition 9.12.2.)

#### 5.3 General Non-Applicability of Regulations of Concern

None

Note: For individual emissions units and groups of similar emission units, non-applicability of regulations is addressed in Section 7 of this permit.

#### 5.4 Other Source-Wide and System-Wide requirements

- a. The Permittee shall comply with the requirements in the Schedule of Unit-Specific Performance, Operational, Maintenance, and Control Technology Requirements of the Consent Decree That Apply to the Havana Station (Schedule), which is Attachment 6 of this permit. This schedule includes all unit-specific performance, operational, maintenance, and control technology requirements related to this source that were established by the Consent Decree in

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*United States of America and the State of Illinois, American Bottom Conservancy, Health and Environmental Justice-St. Louis, Inc., Illinois Stewardship Alliance, and Prairie Rivers Network, v. Illinois Power Company and Dynegy Midwest Generation Inc.*, Civil Action No. 99-833-MJR, U.S. District Court, Southern District of Illinois (Decree). This schedule is included in this permit pursuant to Paragraph 158 of the Consent Decree and Section 39.5(7)(a) of the Act.

Note: A copy of the Decree, as initially entered by the Court on May 27 2005, is attached to this permit, as Attachment 7, for informational purposes.

- b. In particular, the Permittee shall comply with the requirements in Paragraphs 57, 58 through 62, 73, 74 through 81, 98, 99 and 125 of the Schedule. These paragraphs establish unit-specific requirements that also involve or apply to the coal-fired boilers at the Permittee's other plants in Illinois, i.e., its Baldwin, Hennepin, Vermilion and Wood River Stations, as well as the coal-fired boiler at its Havana Station, as follows:
  - i. Paragraph 57 - System-wide annual tonnage limitations for NO<sub>x</sub> emissions (which ultimately, for Calendar Year 2007 and thereafter, limits system-wide annual NO<sub>x</sub> emissions to no more than 13,800 tons), with emissions determined by continuous emissions monitoring systems (CEMS) in accordance with Paragraphs 8, 14, 48 and 65 of the Schedule.
  - ii. Paragraphs 58 through 62 - Provisions addressing and restricting the use of NO<sub>x</sub> Allowances by the Permittee.
  - iii. Paragraph 73 - System-wide annual tonnage limitations for SO<sub>2</sub> emissions (which ultimately, for Calendar Year 2013 and thereafter, limit system-wide annual SO<sub>2</sub> emissions to no more than 29,000 tons), with emissions determined by CEMS in accordance with Paragraphs 8, 14, 48 and 82 of the Schedule.
  - iv. Paragraphs 74 through 81 and 125 - Provisions addressing and restricting the use of SO<sub>2</sub> Allowances by the Permittee.
  - v. Paragraphs 98 and 99 - Provisions addressing and restricting the use of emission reductions that result from actions taken by the Permittee to comply with the requirements of the Decree as a creditable contemporaneous emission decrease for the purpose of obtaining a netting credit under the Nonattainment NSR and PSD programs.

#### 5.5 Permitted Emissions for Purposes of Fees

Emission limitations are not set for this source for the purpose

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of permit fees. Rather, the Permittee shall pay the maximum fee required pursuant to Section 39.5(18) (a) (ii) (A) of the Act, which is currently \$250,000.00 per year. (See also Condition 9.4.)

## 5.6 General Recordkeeping Requirements

### 5.6.1 Records for Emissions

The Permittee shall maintain records for the source to prepare its Annual Emission Report including the following items, pursuant to 4(b) and 39.5(7) (a), (b) and (e) of the Act:

- a. Records of annual emissions from the emission units that are covered by Section 7 (Unit Specific Conditions) of this permit, including emissions of mercury, hydrogen chloride, and hydrogen fluoride.
- b.
  - i. For purposes of estimating mercury emissions from the source, the mercury content of coal burned in boilers may be based on the data collected by USEPA in its Information Collection Request (ICR) pursuant to Section 112 of the Clean Air Act.
  - ii. If ICR data or other reliable data for elemental composition, including mercury content, is not available for coal that is burned in a boiler, the Permittee shall collect representative data on the elemental composition of the coal, similar to the ICR data collected by USEPA.

### 5.6.2 Retention and Availability of Records

The Permittee shall comply with the following requirements with respect to retention and availability of records pursuant to Sections 4(b) and 39.5(7) (a), (b), (e) and (f) of the Act.

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for specific records during the course of a source inspection.

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- c. Upon written request by the Illinois EPA for copies of records or reports required to be kept by this permit, the Permittee shall promptly submit a copy of such material to the Illinois EPA. For this purpose, material shall be submitted to the Illinois EPA within 30 days unless additional time is provided by the Illinois EPA or the Permittee believes that the volume and nature of requested material would make this overly burdensome, in which case, the Permittee shall respond within 30 days with the explanation and a schedule for submittal of the requested material. (See also Condition 9.12.4.)
- d. For certain records required to be kept by this permit as specifically identified in the recordkeeping provisions in Section 7 of this permit, which records are a basis for control practices or other recordkeeping required by this permit, the Permittee shall promptly submit a copy of the record to the Illinois EPA when the record is created or revised. For this purpose, the initial record shall be submitted within 30 days of the issuance of this permit. Subsequent revisions shall be submitted within 10 days of the date the Permittee begins to rely upon the revised record.

## 5.7 General Reporting Requirements

### 5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

- a. For emissions units that are addressed by the unit-specific conditions of this permit, the timing for reporting of deviations shall be in accordance with such conditions.
- b.
  - i. For other emissions units and activities at the source, the timing for reporting of deviations shall be in accordance with the provisions of relevant regulations if such provisions address timing of deviation reports.
  - ii. Otherwise, if the relevant regulations do not address timing of deviation reports, deviation reports shall be submitted within 30 days.

### 5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous



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calendar year including information for emissions of mercury, hydrogen chloride, hydrogen fluoride, and other hazardous air pollutants, as specified by 35 IAC Part 254. [Sections 4(b) and 39.5(7)(a), (b) and (f) of the Act]

#### 5.7.3 Annual Reporting for Certain Requirements of the Schedule

Pursuant to Sections 39.5(a) and (f) of the Act, at the end of each calendar year, the Permittee shall submit a report to the Illinois EPA to address compliance in such year with the requirements in Paragraphs 57, 58 through 62, 73, 74 through 81, and 125 of the Schedule that includes the following information. (See also Conditions 5.4(b)(i) through (b)(iv)). These reports shall be submitted with the last quarterly report for each calendar year, as required for the coal-fired boilers by Condition 7.2.10-2(a).

- a. The system-wide NO<sub>x</sub> emissions for the year, as determined by continuous emissions monitoring in accordance with Paragraph 65 of the Schedule, with supporting explanation.
- b. A statement certifying compliance for such year with Condition 5.4(b)(ii) (which imposes requirements on the use of NO<sub>x</sub> Allowances by the Permittee), accompanied by a summary of the disposition of NO<sub>x</sub> allowances for the year and the actions taken by the Permittee with respect to NO<sub>x</sub> allowances to comply with Condition 5.4(b)(ii).
- c. The System-wide SO<sub>2</sub> emissions for the year, as determined by continuous emissions monitoring in accordance with Paragraph 82 of the Schedule, with supporting explanation.
- d. A statement certifying compliance for such year with Condition 5.4(b)(iv) (which imposes requirements on the use of SO<sub>2</sub> Allowances by the Permittee), accompanied by a summary of the disposition of SO<sub>2</sub> allowances for the year and the actions taken by the Permittee with respect to SO<sub>2</sub> allowances to comply with Condition 5.4(b)(iv).

#### 5.7.4 Progress Reports

Pursuant to paragraph 120 of the Consent Decree, the Permittee shall submit progress reports on a semi-annual basis beginning 30 days after the end of the second full calendar quarter following May 27, 2005 and continuing through December 31, 2015. These progress reports shall contain all information necessary to determine compliance with the applicable requirements of the Consent Decree as well as all the necessary information required by Paragraph 121 of the Consent Decree.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

None

Note: For individual emissions units or groups of similar emission units, operation flexibility and anticipated operating scenarios are addressed in Section 7 of this permit.

6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAM

6.1 NOx Trading Program

6.1.1 Description of NOx Trading Program

The NOx Trading Program is a regional "cap and trade" market system for large sources of NOx emissions in the eastern United States, including Illinois. It is designed to reduce and maintain NOx emissions from the emission units covered by the program within a budget to help contribute to attainment and maintenance of the ozone ambient air quality standard in the multi-state region covered by the program. The NOx Trading Program applies in addition to other applicable requirements for NOx emissions and in no way relaxes these other requirements.

Electrical generating units (EGU) that are subject to the NOx Trading Program are referred to as "budget EGU." Sources that have one or more EGU or other units subject to the NOx Trading Program are referred to as budget sources.

The NOx Trading Program controls NOx emissions from budget EGU and other budget units during a seasonal control period from May 1 through September 30 of each year, when weather conditions are conducive to formation of ozone in the ambient air. By November 30 of each year, the allowance transfer deadline, each budget source must hold "NOx allowances" for the actual NOx emissions of its budget units during the preceding control period. The USEPA will then retire NOx allowances in the source's accounts in amounts equivalent to its seasonal emissions. If a source does not have sufficient allowances in its accounts, USEPA would subtract allowances from the source's future allocation for the next control period and impose other penalties as appropriate. Stringent monitoring procedures developed by USEPA apply to budget units to assure that actual emissions of NOx are accurately determined.

The number of NOx allowances available for budget sources is set by the overall budget for NOx emissions established by USEPA. This budget requires a substantial reduction in NOx emissions from historical levels as necessary to meet air quality goals. In Illinois, existing budget sources initially receive their allocation or share of the NOx allowances budgeted for EGU in an amount determined by rule [35 IAC Part 217, Appendix F]. Between 2007 and 2011, the allocation mechanism for existing EGU gradually shifts to one based on the actual utilization of EGU in preceding control periods. New budget EGU, for which limited utilization data may be available, may obtain NOx allowances from the new source set-aside (NSSA), a portion of the overall budget reserved for new EGU.

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In addition to directly receiving or purchasing NOx allowances as described above, budget sources may transfer NOx allowances from one of their units to another. They may also purchase allowances in the marketplace from other sources that are willing to sell some of the allowances that they have received. Each budget source must designate an account representative to handle all its allowance transactions. The USEPA, in a central national system, will maintain allowance accounts and record transfer of allowances among accounts.

The ability of sources to transfer allowances will serve to minimize the costs of reducing NOx emissions from budget units to comply with the overall NOx budget. In particular, the NOx emissions of budget units that may be most economically controlled will be targeted by sources for further control of emissions. This will result in a surplus of NOx allowances from those units that can be transferred to other units at which it is more difficult to control NOx emissions. Experience with reduction of SO<sub>2</sub> emissions under the federal Acid Rain program has shown that this type of trading program not only achieves regional emission reductions in a more cost-effective manner but also results in greater overall reductions than application of traditional emission standards to individual emission units.

The USEPA developed the plan for the NOx Trading Program with assistance from affected states. Illinois' rules for the NOx Trading Program for EGU are located in 35 IAC Part 217, Subpart W and have been approved by the USEPA. These rules provide for interstate trading, as mandated by Section 9.9 of the Act. Accordingly, these rules refer to and rely upon federal rules at 40 CFR Part 96, which have been developed by USEPA for certain aspects of the NOx Trading Program, and which an individual state must follow to allow for interstate trading of NOx allowances.

Note: This narrative description of the NOx Trading Program is for informational purposes only and is not enforceable.

#### 6.1.2 Applicability

- a. The following emission units at this source are budget EGU for purposes of the NOx Trading Program. Accordingly, this source is a budget source and the Permittee is the owner or operator of a budget source and budget EGU. In this section of the permit, these emission units are addressed as budget EGU.

Boilers 1 through 9

- b. This permit does not provide "low-emitter status" for the above emission units, pursuant to 35 IAC 217.754(c).

6.1.3 General Provisions of the NOx Trading Program

- a. This source and the budget EGU at this source shall comply with all applicable requirements of Illinois' NOx Trading Program, i.e., 35 IAC Part 217, Subpart W, and 40 CFR Part 96 (excluding 40 CFR 96.4(b) and 96.55(c), and excluding 40 CFR 96, Subparts C, E and I), pursuant to 35 IAC 217.756(a) and 217.756(f) (2).
- b. Any provision of the NOx Trading Program that applies to a budget source (including any provision applicable to the account representative of a budget source) shall also apply to the owner or operator of such budget sources and to the owner and operator of each budget EGU at the source, pursuant to 35 IAC 217.756(f) (3).
- c. Any provision of the NOx Trading Program that applies to a budget EGU (including any provision applicable to the account representative of a budget EGU) shall also apply to the owner and operator of such budget EGU. Except with regard to requirements applicable to budget EGUs with a common stack under 40 CFR 96, Subpart H, the owner and operator and the account representative of one budget EGU shall not be liable for any violation by any other budget EGU of which they are not an owner or operator or the account representative, pursuant to 35 IAC 217.756(f) (4).

6.1.4 Requirements for NOx Allowances

- a. Beginning in 2004, by November 30 of each year, the allowance transfer deadline, the account representative of each budget EGU at this source shall hold allowances available for compliance deduction under 40 CFR 96.54 in the budget EGU's compliance account or the source's overdraft account in an amount that shall not be less than the budget EGU's total tons of NOx emissions for the preceding control period, rounded to the nearest whole ton, as determined in accordance with 40 CFR 96, Subpart H, plus any number necessary to account for actual utilization (e.g., for testing, start-up, malfunction, and shut down under 40 CFR 96.42(e) for the control period, pursuant to 35 IAC 217.756(d) (1). For purposes of this requirement, an allowance may not be utilized for a control period in a year prior to the year for which the allowance is allocated, pursuant to 35 IAC 217.756(d) (5).
- b. The account representative of a budget EGU that has excess emissions in any control period, i.e., NOx emissions in excess of the number of NOx allowances held as provided above, shall surrender the allowances as required for deduction under 40 CFR

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96.54(d)(1), pursuant to 35 IAC 217.756(f)(5). In addition, the owner or operator of a budget EGU that has excess emissions shall pay any fine, penalty, or assessment, or comply with any other remedy imposed under 40 CFR 96.54(d)(3) and the Act, pursuant to 35 IAC 217.756(f)(6). Each ton of NOx emitted in excess of the number of NOx allowances held as provided above for each budget EGU for each control period shall constitute a separate violation of 35 IAC Part 217 and the Act, pursuant to 35 IAC 217.756(d)(2).

- c. An allowance allocated by the Illinois EPA or USEPA under the NOx Trading Program is a limited authorization to emit one ton of NOx in accordance with the NOx Trading Program. As explained by 35 IAC 217.756(d)(6), no provision of the NOx Trading Program, the budget permit application, the budget permit, or a retired unit exemption under 40 CFR 96.5 and no provision of law shall be construed to limit the authority of the United States or the State of Illinois to terminate or limit this authorization. As further explained by 35 IAC 217.765(d)(7), an allowance allocated by the Illinois EPA or USEPA under the NOx Trading Program does not constitute a property right. As provided by 35 IAC 217.756(c)(4), allowances shall be held, deducted from, or transferred among allowance accounts in accordance with 35 IAC Part 217, Subpart W, and 40 CFR 96, Subparts F and G.

#### 6.1.5 Monitoring Requirements for Budget EGU

- a. The Permittee shall comply with the monitoring requirements of 40 CFR Part 96, Subpart H, for each budget EGU and the compliance of each budget EGU with the emission limitation under Condition 6.1.4(a) shall be determined by the emission measurements recorded and reported in accordance with 40 CFR 96, Subpart H, pursuant to 35 IAC 217.756(c)(1), (c)(2) and (d)(3).
  - i. For Boilers 1 through 9, the Permittee is conducting continuous emissions monitoring for NOx, as generally provided for by 40 CFR 75.71(a).
- b. The account representative for the source and each budget EGU at the source shall comply with those sections of the monitoring requirements of 40 CFR 96, Subpart H, applicable to an account representative, pursuant to 35 IAC 217.756(c)(1) and (d)(3).

#### 6.1.6 Recordkeeping Requirements for Budget EGU

Unless otherwise provided below, the Permittee shall keep on site at the source each of the following documents for

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a period of at least 5 years from the date the document is created. This 5-year period may be extended for cause at any time prior to the end of the 5 years, in writing by the Illinois EPA or the USEPA.

- a. The account certificate of representation of the account representative for the source and each budget EGU at the source and all documents that demonstrate the truth of the statements in account certificate of representation, in accordance with 40 CFR 96.13, as provided by 35 IAC 217.756(e) (1) (A). These certificates and documents must be retained on site at the source for at least 5-years after they are superseded because of the submission of a new account certificate of representation changing the account representative.
- b. All emissions monitoring information, in accordance with 40 CFR 96, Subpart H, (provided that to the extent that 40 CFR 96, Subpart H, provides for a 3-year period for retaining records, the 3-year period shall apply,) pursuant to 35 IAC 217.756(e) (1) (B).
- c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NOx Trading Program or documents necessary to demonstrate compliance with requirements of the NOx Trading Program, pursuant to 35 IAC 217.756(e) (1) (C).
- d. Copies of all documents used to complete a budget permit application and any other submission under the NOx Trading Program, pursuant to 35 IAC 217.756(e) (1) (D).

#### 6.1.7 Reporting Requirements for Budget EGU

- a. The account representative for this source and each budget EGU at this source shall submit to the Illinois EPA and USEPA the reports and compliance certifications required under the NOx Trading Program, including those under 40 CFR 96, Subparts D and H and 35 IAC 217.774, pursuant to 35 IAC 217.756(e) (2).
- b. Notwithstanding the provisions in Conditions 9.8 and 9.9 of this CAAPP permit, these submittals need only be signed by the designated representative, who may serve in place of the responsible official for this purpose as provided by the Section 39.5(1) of the Act, and submittals to the Illinois EPA need only be made to the Illinois EPA, Air Compliance Section.

#### 6.1.8 Allocation of NOx Allowances to Budget EGU

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- a. As the budget EGU identified in Condition 6.1.2(a) are "existing" EGU listed in 35 IAC Part 217, Appendix F, these EGU are entitled to NOx allowances as follows. (The portion of Appendix F that applies to the Permittee is provided in Condition 6.1.10). The number of NOx allowances actually allocated for these budget EGU shall be the number of NOx allowances issued by USEPA pursuant to the allocation information reported to it by the Illinois EPA, which information may reflect adjustments to the overall allocations to all budget EGU as provided for by 35 IAC 217.760(b) and (c):
- i. In 2004 through 2006 (the first three years of the NOx Trading Program), an annual allocation of NOx allowances as specified by 35 IAC 217.764(a)(1), (i.e., the number of NOx allowances listed in Appendix F, Column 7), and as provided by 35 IAC 217.768(j), a pro-rata share of any NOx allowances remaining in the new source set-aside (NSSA) following the allocation of allowances to new budget EGU.
  - ii. In 2007, as provided by 35 IAC 217.764(b), an allocation of NOx allowances as specified by 35 IAC 217.764(b)(1), (i.e., the number of NOx allowances listed in Appendix F, Column 8), and as provided by 35 IAC 217.764(b)(4), a pro-rata share of any NOx allowances remaining after the allocation of allowances pursuant to 35 IAC 217.764(b)(2) to other budget EGU that commence operation between January 1, 1995 and April 30, 2003.
  - iii. In 2008, as provided by 35 IAC 217.764(c), a specified allocation of NOx allowances, i.e., the number of NOx allowances listed in Appendix F, Column 8, and as provided by 35 IAC 217.764(c)(4), a pro-rata share of any NOx allowances remaining after the allocation of allowances to other budget EGU that commence operation between January 1, 1995 and April 30, 2004.
  - iv. In 2009, as provided by 35 IAC 217.764(d), a specified allocation of NOx allowances, i.e., the number of NOx allowances listed in Appendix F, Column 9, and as provided by 35 IAC 217.764(d)(4), a pro-rata share of any NOx allowances remaining after the allocation of NOx allowances to other budget EGU that commence operation between January 1, 1995 and April 30, 2005, and as provided by 35 IAC 217.764(d)(6), a pro-rata share of any surplus of NOx allowances in the NSSA after the allocation of NOx allowances to new budget EGU



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pursuant to 35 IAC 217.764(d) (5).

- v. In 2010, as provided by 35 IAC 217.764(e), a specified allocation of NOx allowances, (i.e., the number of NOx allowances listed in Appendix F, Column 9), and a pro-rata share of any NOx allowances remaining after the allocation of NOx allowances to other budget EGU that commence operation between January 1, 1995 and April 30, 2006, and a pro-rata share of any surplus of NOx allowances in the NSSA following the allocation of NOx allowances to new budget EGU.
  - vi. In 2011 and annually thereafter, as provided by 35 IAC 217.764(f), an allocation of NOx allowances based on the prior operation of these budget EGU during previous control periods as described in Condition 6.1.8(b), and a pro-rata share of any surplus of NOx allowances in the NSSA following the allocation of NOx allowances to new budget EGU.
- b. In accordance with 35 IAC 217.762, the theoretical number of NOx allowances for these budget EGU listed in Condition 6.1.2(a), calculated as the product of the applicable NOx emissions rate and heat input as follows, shall be the basis for determining the pro-rata share of NOx allowances for these budget EGU and the allocation of NOx allowances to these budget EGU based on their prior operation:
- i. The applicable NOx emission rate for these budget EGU shall be 0.15 lb/mmBtu, as specified by 35 IAC 217.762(a) (1),
  - ii. The applicable heat input (mmBtu/control period) shall be the average of the two highest heat inputs from the control periods four to six years prior to the year for which the allocation is being made, as provided by 35 IAC 217.762(b) (1).

6.1.9 Budget Permit Required by the NOx Trading Program

- a. For this source, this Section of the CAAPP Permit, i.e., Section 6.1, is the Budget Permit required by the NOx Trading Program and is intended to contain federally enforceable conditions addressing all applicable NOx Trading Program requirements. This Budget Permit shall be treated as a complete and segregable portion of the source's entire CAAPP permit, as provided by 35 IAC 217.758(a) (2).

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- b. The Permittee and any other owner or operator of this source and each budget EGU at the source shall operate the budget EGU in compliance with this Budget Permit, pursuant to 35 IAC 217.756(b) (2).
- c. No provision of this Budget Permit or the associated application shall be construed as exempting or excluding the Permittee, or other owner or operator and, to the extent applicable, the account representative of a budget source or budget EGU from compliance with any other regulation or requirement promulgated under the CAA, the Act, the approved State Implementation Plan, or other federally enforceable permit, pursuant to 35 IAC 217.756(g).
- d. Upon recordation by USEPA, under 40 CFR 96, Subparts F or G, or 35 IAC 217.782, every allocation, transfer, or deduction of an allowance to or from the budget EGU's compliance accounts or to or from the overdraft account for the budget source is deemed to amend automatically, and become part of, this budget permit, pursuant to 35 IAC 217.756(d) (8). This automatic amendment of this budget permit shall be deemed an operation of law and will not require any further review.
- e. No revision of this Budget Permit shall excuse any violation of the requirements of the NO<sub>x</sub> Trading Program that occurs prior to the date that the revisions to this permit takes effect, pursuant to 35 IAC 217.756(f) (1).
- f. The Permittee, or other owner or operator of the source, shall reapply for a Budget Permit for the source as required by 35 IAC Part 217, Subpart W and Section 39.5 of the Act. For purposes of the NO<sub>x</sub> Trading Program, the application shall contain the information specified by 35 IAC 217.758(b) (2).

## 6.1.10 References

35 IAC Part 217 Appendix F  
(provisions applicable to the Permittee)

Company/ ID No.	Generating Unit	EGU	NO <sub>x</sub> Budget Allowances	80% of NO <sub>x</sub> Budget Allowances	50% of NO <sub>x</sub> Budget Allowances	2004, 2005, 2006 Allowances	2007, 2008 Allowances	2009, 2010 Allowances
1	2	3	4	5	6	7	8	9
125804AAB	Havana 1-5	Boiler 1	0	0	0	0	0	0
"	Havana 1-5	Boiler 2	0	0	0	0	0	0
"	Havana 1-5	Boiler 3	0	0	0	0	0	0
"	Havana 1-5	Boiler 4	0	0	0	0	0	0
"	Havana 1-5	Boiler 5	0	0	0	0	0	0
"	Havana 1-5	Boiler 6	0	0	0	0	0	0
	Havana 1-5	Boiler 7	0	0	0	0	0	0
	Havana 1-5	Boiler 8	0	0	0	0	0	0
	Havana 6	Boiler 9	547	438	274	520	429	268

## 6.2 Acid Rain Requirements

### 6.2.1 Applicability

Under Title IV of the CAA, Acid Deposition Control, this source is an affected source and the following emission units at the source are affected units for acid deposition:

Boilers 1 through 8  
Boiler 9

Note: Title IV of the CAA, and other laws and regulations promulgated thereunder, establish requirements for affected sources related to control of emissions of pollutants that contribute to acid rain. For purposes of this permit, these requirements are referred to as Title IV provisions.

### 6.2.2 Applicable Emission Requirements

The owners and operators of the source shall not violate applicable Title IV provisions. In particular, NO<sub>x</sub> emissions of affected units shall not exceed the limit set by 40 CFR Part 76, with the ability for averaging among units as allowed by an Acid Rain Permit. SO<sub>2</sub> emissions of the affected units shall not exceed any allowances that the source lawfully holds under Title IV provisions. [Section 39.5(7)(g) and (17)(1) of the Act]

Note: Affected sources must hold SO<sub>2</sub> allowances to account for the SO<sub>2</sub> emissions from affected units at the source that are subject to Title IV provisions. Each allowance is a limited authorization to emit up to one ton of SO<sub>2</sub> emissions during or after a specified calendar year. The possession of allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

### 6.2.3 Monitoring, Recordkeeping and Reporting

The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by Title IV provisions, including 40 CFR Part 75. [Section 39.5(7)(b) and 17(m) of the Act]

Note: As further addressed by Section 7 of this permit, the emissions of NO<sub>x</sub> and SO<sub>2</sub> of Boilers 1 through 8 are currently being determined by the alternative procedures of the Acid Rain program. The following emission determination methods are currently being used for Boiler 9.

NO<sub>x</sub>: Continuous emissions monitoring (40 CFR 75.12)  
SO<sub>2</sub>: Continuous emissions monitoring (40 CFR 75.11)  
Opacity: Continuous emission monitoring (40 CFR 75.14)

6.2.4 Acid Rain Permit

The owners and operators of the source shall comply with the terms and conditions of the source's Acid Rain permit. [Section 39.5(17) (1) of the Act]

Note: The source is subject to an Acid Rain permit, which was issued pursuant to Title IV provisions, including Section 39.5(17) of the Act. Affected sources must be operated in compliance with their Acid Rain permits. This source's Acid Rain permit is incorporated by reference into this permit and a copy of the current Acid Rain permit is included as Attachment 5 of this permit. Revisions and modifications of this Acid Rain permit, including administrative amendments and automatic amendments (pursuant to Sections 408(b) and 403(d) of the CAA or regulations thereunder) are governed by Title IV provisions, as provided by Section 39.5(13) (e) of the Act. Accordingly, revision or renewal of the Acid Rain permit may be handled separately from this CAAPP permit and a copy of the new Acid Rain permit may be included in this permit by administrative amendment.

6.2.5 Coordination with Other Requirements

- a. This permit does not contain any conditions that are intended to interfere with or modify the requirements of Title IV provisions. In particular, this permit does not restrict the flexibility under Title IV provisions of the owners and operators of this source to amend their Acid Rain compliance plan. [Section 39.5(17) (h) of the Act]
- b. Where another applicable requirement of the CAA is more stringent than an applicable requirement of Title IV provisions, both requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements. [Section 39.5(7) (h) of the Act]

7.0 UNIT SPECIFIC CONDITIONS

7.1 Oil Fired Boilers (Boilers 1 through 8)

7.1.1 Descriptions

The Permittee operates eight residual oil fired boilers to produce steam to generate electricity. The boilers, which were built between 1947 and 1950, were converted from coal to oil-firing in the early 1970s. The boilers are identical in size and type, each with a nominal capacity, expressed in terms of electrical capacity, of 50 MW. The boilers connect to a common steam header that serves five steam turbine generators, each with a rated nominal capacity of 50 MW gross. The boilers are exhausted to a common exhaust header, which in turn, discharges to the atmosphere through three stacks. During startup of the boilers, distillate fuel oil is used as an auxiliary fuel to ignite the residual fuel oil.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Unit	Description	Control Equipment
Boiler 1	Combustion Engineering Boiler #13135 50 MW Nominal Rating (1947)	None
Boiler 2	Combustion Engineering Boiler #13133 50 MW Nominal Rating (1947)	None
Boiler 3	Combustion Engineering Boiler #13131 50 MW Nominal Rating (1947)	None
Boiler 4	Combustion Engineering Boiler #14813 50 MW Nominal Rating (1948)	None
Boiler 5	Combustion Engineering Boiler #14137 50 MW Nominal Rating (1949)	None
Boiler 6	Combustion Engineering Boiler #15295 50 MW Nominal Rating (1950)	None
Boiler 7	Combustion Engineering Boiler #14139 50 MW Nominal Rating (1950)	None
Boiler 8	Combustion Engineering Boiler #15805 50 MW Nominal Rating (1950)	None

Note: These boilers may also be referred to as Havana Units 1 through 5, based on the designation of the five associated steam turbine generators.

7.1.3 Applicability Provisions

- a. An "affected boiler" for the purpose of these unit-

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specific conditions, is a boiler described in Conditions 7.1.1 and 7.1.2.

b. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate an affected boiler in violation of the applicable standards in Condition 7.1.4(a) (35 IAC 212.123), Condition 7.1.4(b) (35 IAC 212.206), and Condition 7.1.4(d) (35 IAC 216.121), during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual startups and frequency of startups."

i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups.

ii. The Permittee shall conduct startup of an affected boiler in accordance with written procedures prepared by the Permittee and maintained in the control room for the boiler, that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:

A. Use of auxiliary fuel burners to heat the boiler.

iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Conditions 7.1.9(b) and (e) and 7.1.10-2(a).

iv. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

c. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected boiler in violation of the applicable standards in Condition 7.1.4(a) (35 IAC 212.123),

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Condition 7.1.4(b) (35 IAC 212.206), and Condition 7.1.4(d) (35 IAC 216.121), in the event of a malfunction or breakdown of an affected boiler. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or to prevent injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practicable reduce boiler load, repair the affected boiler, remove the affected boiler from service or undertake other action so that excess emissions cease.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Conditions 7.1.9(b) and (f), 7.1.10-2(d) and 7.1.10-3(a). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the boiler out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such

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violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

#### 7.1.4 Applicable Emission Standards

- a. The affected boilers shall comply with the standard in Condition 5.2.2(b) [35 IAC 212.123], which addresses the opacity of the emission of smoke or other particulate matter from the affected boilers.
- b. The emissions of PM from each affected boiler attributable to burning oil (liquid fuel) shall not exceed 0.10 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 212.206 and 212.207.
- c.
  - i. The emissions of SO<sub>2</sub> from each affected boiler from burning residual oil shall not exceed 1.0 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 214.161(a) and 214.162.
  - ii. The emissions of SO<sub>2</sub> from each affected boiler from burning distillate oil shall not exceed 0.3 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 214.161(b) and 214.162.
- d. The emissions of CO from each affected boiler shall not exceed 200 ppm, corrected to 50 percent excess air, pursuant to 35 IAC 216.121.
- e. The affected boilers are each subject to the following requirements related to NO<sub>x</sub> emissions pursuant to 35 IAC Part 217 Subpart V:
  - i. During each ozone control period (May 1 through September 30):
    - A. The emissions of NO<sub>x</sub> from an affected boiler shall not exceed 0.25 lb/mmBtu of actual heat input based on a ozone control period average, for that unit, pursuant to 35 IAC 217.706(a), or
    - B. If the Permittee elects to participate in a NO<sub>x</sub> averaging plan, the emissions of NO<sub>x</sub> from the affected boilers and other eligible EGU that are participating in such NO<sub>x</sub> averaging demonstration shall not exceed 0.25 lbs/mmBtu of actual heat input, as averaged for the ozone control period for the EGU participating in the demonstration, pursuant to 35 IAC



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217.708(a) and (b). For this purpose, other eligible EGU include: (1) Boiler 9, coal-fired boiler at this source, and (2) Other EGU that are authorized to participate in a NOx averaging plan by a CAAPP permit or other federally enforceable permit issued by the Illinois EPA to the owner or operator of those EGU.

Note: Given the emission determination methods specified by 35 IAC 217.710, the emissions of NOx for purposes of these standards are generally calculated in accordance with the federal Acid Rain Program and are different from the emissions determined for purposes of the NOx Trading Program.

- ii. If the Permittee elects to have affected boilers comply by participation in a NOx averaging demonstration as provided for and authorized above:
  - A. The affected boilers shall be included in only one NOx averaging demonstration during an ozone control period, pursuant to 35 IAC 217.708(d).
  - B. The NOx averaging demonstration shall only include other EGU that are authorized through a federally enforceable permit to participate in a NOx averaging demonstration and for which the owner or operator of the EGU maintains the required records, data and reports and submits copies of such records, data, and reports to the Illinois EPA upon request, pursuant to 35 IAC 217.708(c) and (g).
  - C. The effect of failure of the NOx averaging demonstration to show compliance shall be that the compliance status of the affected boiler shall be determined pursuant to Condition 7.1.4(e)(i)(A) as if the NOx emission rates of the affected boiler were not averaged with other EGU, pursuant to 35 IAC 217.708(f).

Note: The above requirements also apply as a matter of rule to EGUs other than the affected boiler if the owner or operator of such other EGUs elects to participate in a NOx averaging demonstration.

#### 7.1.5 Non-Applicability of Regulations of Possible Concern

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- a.
  - i. This permit is issued based on the Permittee not being required to conduct continuous emissions monitoring for SO<sub>2</sub> and NO<sub>x</sub> emissions from the affected boilers under the federal Acid Rain program because the affected boilers qualify as gas and oil fired units for purposes of SO<sub>2</sub> and peaking units for purposes of NO<sub>x</sub>, so that the alternative emissions monitoring procedures of the Acid Rain program may be used.
  - ii. The Permittee shall keep appropriate records for each affected boiler to demonstrate that it continues to meet the applicable criteria of the federal Acid Rain program for peaking units.

7.1.6 Work Practices, Operational and Production Limits and Emission Limitations

- a. As part of its operation and maintenance of the affected boilers, the Permittee shall perform formal "combustion evaluation" on each boiler in each calendar quarter in which the boiler operates for at least 50 hours\*, pursuant to Section 39.5(7)(d) of the Act. These evaluations shall consist of diagnostic measurements of the concentration of CO in the flue gas of the affected boiler, with adjustments and preventative and corrective measures for the boiler's combustion systems to maintain efficient combustion.

\* If an affected boiler does not operate for 50 hours in a calendar quarter, the interval between combustion evaluations shall be no greater than 50 hours of boiler operation.

7.1.7 Testing Requirements

Pursuant to Section 39.5(7)(d)(ii) of the Act, the Permittee shall have the PM and CO emissions of the affected boilers measured as specified below:

- a.
  - i.
    - A. PM emission measurements shall be made within 12 months or by December 31, 2008, whichever occurs later, if the affected boilers operate for more than 120 hours average in any rolling 12 month period,.
    - B. Measurements of CO emissions shall be made in conjunction with the initial measurements of PM emissions as required above, if a measurement of CO emissions is not otherwise performed earlier in conjunction testing for NO<sub>x</sub> emissions conducted under this permit.
  - ii. Measurements of PM and CO emissions shall be

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made within 90 days (or such later date set by the Illinois EPA) following a reasonable request by the Illinois EPA for such measurements.

- b. i. These measurements shall be performed at the maximum operating loads of the affected boilers and other operating conditions that are representative of normal operation. In addition, the Permittee may perform measurements at other operating conditions to evaluate variation in emissions.
- ii. Measurements shall be taken at an appropriate location in the ductwork or stack associated with the affected boilers.
- iii. The following test methods and procedures shall be used for these measurements. Refer to 40 CFR 60, Appendix A for USEPA Methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Methods 5 and 202*
Carbon Monoxide (CO)	USEPA Method 10

Other test methods adopted by USEPA may be used in place of the above methods with the approval of the Illinois EPA

\* Measurements of condensable PM are also required by USEPA Method 202 (40 CFR Part 51, Appendix M) or other established test method approved by the Illinois EPA, unless the PM measurement is conducted before the issuance of this permit.

- c. Except for minor deviations in test methods, as defined by 35 IAC 283.130, emission testing shall be conducted in accordance with a test plan prepared by the testing service or the Permittee and submitted to the Illinois EPA for review prior to emission testing, and the conditions, if any, imposed by the Illinois EPA as part of its review and approval of the test plan, pursuant to 35 IAC 283.220 and 283.230.
  - i. The Permittee shall submit this test plan at least 60 days prior to the actual date of testing and the test plan shall include the information specified by Condition 8.6.2.
  - ii. Notwithstanding the above, as provided by 35 IAC 283.220(d), the Permittee need not submit a test plan for emission testing that will be

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conducted in accordance with the procedures used for previous tests accepted by the Illinois EPA or the previous test plan submitted to and approved by the Illinois EPA, provided that the Permittee's notification for testing, as required below, contains the information specified by 35 IAC 283.220(d)(1)(A), (B) and (C).

- d. The Permittee shall notify the Illinois EPA prior to conducting emission tests to enable the Illinois EPA to observe testing. Notification for the expected test date shall be submitted a minimum of 30 days prior to the expected date of testing. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual test date. The Illinois EPA may on a case-by-case basis accept shorter advance notice if it would not interfere with the Illinois EPA's ability to observe testing.
- e. The Permittee shall submit the Final Report(s) for any required emission testing to the Illinois EPA within 45 days after the tests results are compiled and finalized but no later than 120 days after the date of testing. The Final Report shall include the information specified in Condition 8.6.3 and the following information:
  - i. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - ii. A description of any minor deviations from the test plan, as provided by 35 IAC 283.230(a).
  - iii. Detailed description of operating conditions during testing, including:
    - A. Source(s) of fuel and specifications (ash, sulfur and heat content).
    - B. Boiler operating information, i.e., firing rate of the affected boiler(s) (mmBtu/hr) and composition of fuel as burned (ash, sulfur and heat content).
    - C. Combustion system information, i.e., settings for distribution of primary and secondary combustion air, target level for O<sub>2</sub> in the flue gas, and levels of CO, CO<sub>2</sub> or O<sub>2</sub> in the flue gas, as determined by any diagnostic measurements.
    - D. Load during testing (steam flow).

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- iv. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- v. The opacity data (6-minute and hourly averages) measured during testing.

#### 7.1.8 Emission Monitoring Requirements

##### a. Opacity Monitoring

Pursuant to 40 CFR 75.14 and Section 39.5(7)(d)(iii), the Permittee shall install, operate, calibrate and maintain continuous monitoring equipment for the measurement of opacity from the affected boilers. For this purpose, monitoring systems may be operated at locations in the stacks that are common to affected boilers.

- i. The Permittee shall operate this equipment in accordance with the general provisions for opacity monitoring systems in 40 CFR 75.10.
- ii. These monitors shall be the primary basis for reporting of exceedances of Condition 7.1.4(a). (See Conditions 7.1.10-2(a) and 7.1.10-3(a).)

##### b. Pursuant to 35 IAC 217.710(a), the Permittee, shall install, calibrate, maintain and operate continuous monitoring equipment for the determination of NOx emissions from the affected boilers, in accordance with the requirements of 40 CFR 75 Appendix E.

##### c. Pursuant to Section 412 of the Clean Air Act and 40 CFR Part 75, the source is required to operate continuous monitors for the affected boilers for various parameters, including opacity, and fuel flow (for determining mass SO<sub>2</sub> and NOx emissions) along with a computerized data acquisition and handling system for collected data. (See also Condition 6.2.3) To the extent that applicable performance specifications and operating requirements for monitoring under 40 CFR Part 75 are inconsistent with the above requirements for monitoring, the procedures of 40 CFR Part 75 shall take precedence. (See also Condition 8.2)

#### 7.1.9 Recordkeeping Requirements

The Permittee shall maintain the following records for the affected boilers pursuant to Sections 39.5(7)(a) and (e) of the Act:

##### a. Operational Records for Affected Boilers

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Pursuant to Sections 39.5(7)(a) and (e) of the Act, the Permittee shall maintain the following operational records for the affected boilers:

- i. A. Records of load (in terms of steam flow) on an hourly basis for each affected boiler.
- B. If the Permittee is relying on data for heat input for purposes of compliance with Condition 7.1.4(b) that is different from that recorded pursuant to the federal Acid Rain Program, records of heat input (mmBtu, on an hourly basis) or the conversion factors that the Permittee uses to convert from boiler load as recorded above to hourly heat input.
- ii. Records related to the sulfur content of the oil supply to the affected boilers:
  - A. Records for each shipment of fuel oil for the affected boilers, including date, supplier, quantity (in gallons), sulfur content, heat content, and whether the SO<sub>2</sub> emissions from the burning of such fuel would meet the applicable standard in Condition 7.1.4(c). For this purpose, the sulfur and heat content of oil shall be determined using the applicable methodology specified by the applicable procedures specified by Section 2.2 of the federal Acid Rain Program, 40 CFR Part 75, Appendix D, Optional SO<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units.
  - B. If a shipment of fuel oil is accepted that by itself would not meet Condition 7.1.4(c), records for the sulfur content of the oil supply to the affected boilers, in lb/mmBtu, determined from an analysis of a representative sample of the oil in the storage tank taken by the Permittee using methods that would be acceptable under the federal Acid Rain Program, 40 CFR 75, Appendix D, e.g., ASTM D4057-88 and ASTM D129-91, which sample shall be taken prior to adding a subsequent shipment of oil to the storage tank:
- iii. A. Records for total operating hours (hours/quarter) for each affected boiler
- B. Records for Average operating hours

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(hours/12 months, on a rolling basis) for the affected boilers, as a group.

- iv. A. Records of the residual fuel oil usage for each affected boiler, (gallons/month and gallons/year).
  - B. Records for the Amount of each other fuel material consumed (gallons or cubic feet per quarter, as appropriate).
  - v. An operating log, maintenance and repair log, or other records for each affected boiler documenting the performance of the combustion evaluation required by Condition 7.1.6(a), including the date of the evaluation, the concentrations of CO measured at the start and conclusion of the evaluation, and a description of adjustments and preventative and corrective measures undertaken for the combustion systems of the boiler.
- b. Records for Continuous Opacity Monitoring Systems
- Pursuant to Section 39.5(7) (e) of the Act, the Permittee shall maintain records for the opacity monitoring system on each of the three stacks serving the affected boilers as required by Condition 7.1.8(a) that as a minimum shall include:
- i. Operating records for each opacity monitoring system, including:
    - A. Opacity measurements;
    - B. Continuous monitoring system performance testing measurements;
    - C. Performance evaluations and other quality assurance/control activities;
    - D. Calibration checks;
    - E. Maintenance and adjustment performed;
    - F. Periods other than performance of quality assurance, calibration, and maintenance, as addressed above, when the monitor was inoperative, with reason; and
    - G. Quarterly reports submitted in accordance with Condition 7.1.10-2(a) and (d).
  - ii. Records for the affected boilers that identify the upper bound of the 95% confidence interval (using a normal distribution and 1 minute

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averages) for opacity measurements from the boilers, considering an hour of operation, within which compliance with Condition 7.1.4(b) is assured, with supporting explanation and documentation, including results of historic emission tests. At a minimum, these records shall be reviewed and revised as necessary following performance of each subsequent PM emission test on the affected boilers. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).

iii. Records to address compliance with Conditions 7.1.4(a) and (b), including:

- A. Each 6-minute period when the opacity from a stack serving the affected boilers was above the limitation of Condition 7.1.4(a) (30 percent opacity) with date, time, whether it occurred during startup, malfunction/breakdown, or shutdown, and further explanation of the incident; and
- B. Each hour when the measured opacity from a stack serving the affected boilers was above the upper bound, as specified above in Condition 7.1.9(b)(ii), with date, time, operating condition if startup, malfunction or breakdown, or shutdown, further explanation of the incident, and whether particulate matter emissions may have exceeded the limit of Condition 7.1.4(b), with explanation.

c. Records for Fuel Flow Monitoring Systems

Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records for the fuel flow monitoring system on the affected boilers required by Condition 7.1.8(c) that as a minimum shall include:

- i. Operating records for each fuel flow monitoring system, including:
  - A. Fuel Flow measurements.
  - B. Performance evaluations and other quality assurance/control activities.
  - C. Fuel flow meter calibration checks.
  - D. Maintenance and adjustments performed.
  - E. Periods when a fuel flow monitor was inoperative, with date, time and reason.



- F. Data reduction information.
- G. Quarterly reports submitted in accordance with Condition 7.1.10-2(a)(ii).
- ii. For each period of time during which the sulfur content of the fuel oil burned in the affected boilers was above the level needed for compliance with Condition 7.1.4(c):
  - A. Identification of the period of time.
  - B. The amount of oil used in the affected boilers, gallons, and the sulfur content of the oil, in lb sulfur/gallon and lb sulfur/mmBtu.
  - C. Identification of each affected boiler that burned such oil during such period, with its operating schedule during such period.
- d. Records for Monitoring Systems Related to NOx Emissions

The Permittee shall maintain records for the monitoring systems on the affected boilers for determination of NOx emissions required by Condition 7.1.8(b) and (c) in accordance with the applicable recordkeeping requirements of 40 CFR 75, pursuant to 35 IAC 217.712(a).

- e. Records for Startups

Pursuant to Sections 39.5(7)(a) and (e) of the Act, the Permittee shall maintain records, related to startup of the affected boilers that at a minimum shall include the following:

- i. The Permittee's startup procedures for the affected boilers (as required by Condition 7.1.3(b)(ii)), accompanied by the Permittee's estimates of both the total and excess opacity and emissions of PM and CO during typical startup(s), with supporting calculations.
- ii. Records for each startup of an affected boiler, including:
  - A. Date and description of startup, e.g., scheduled startup or unscheduled startup.
  - B. Duration of the startup, from initial firing of fuel to achievement of stable operation firing the principal fuel, with boiler systems operating to enable

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compliance with opacity, PM and CO  
emission standards.

- C. If the duration of startup is greater than 2 hours or if the source's startup procedures are not followed:

I. A detailed explanation why startup could not be completed sooner or the source's startup procedures were not be followed.

II. Documentation for the source's startup procedures that were followed.

III. Estimates of magnitude of PM and CO emitted in excess of the applicable standards during startup.

- f. Records for Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7) (a) and (e) of the Act, the Permittee shall maintain records related to malfunction and breakdown for the affected boilers that, as a minimum, shall include:

i. Maintenance and repair log(s) for the affected boilers that, at a minimum, address aspects or components of the boilers for which malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or components, with date, description and reason for the activity.

ii. Records for each incident when operation of an affected boiler continued with excess emissions, including malfunction and breakdown as addressed by Condition 7.1.3(c), including the following information:

A. The date and duration of the incident.

B. The identity of the boiler(s) involved in the incident and a description of the incident.

C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.

D. Confirmation of fulfillment of the requirements of Condition 7.1.10-3(a), as applicable, including copies of follow-up reports submitted pursuant to Condition

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## 7.1.10-3(a) (ii).

E. If opacity exceeded the applicable standard (Condition 7.1.4(a)) for two or more hours or PM, CO or NOx emissions may have exceeded the applicable hourly standard (Condition 7.1.4(b), (d) and (e)):

1. A detailed explanation why continued operation of the affected boiler was necessary.
2. The preventative measures that have been or will be taken to prevent similar incidents or reduce their frequency and severity, including any repairs to the affected boilers and associated equipment and any changes to their operating and maintenance procedures.
3. An estimate of the magnitude of excess emissions occurring during the incident.

## g. Acid Rain Program

Records for the continuous emission monitoring required for the Acid Rain Program should be kept by the source in accordance with 40 CFR Part 75, including the General Recordkeeping Provisions; the General Recordkeeping Provisions for Specific Situations, if applicable; and Certification, Quality Assurance and Quality Control Record Provisions. [See Condition 6.2.3]

## 7.1.10-1 Reporting Requirements - Reporting of Deviations

## a. Prompt Reporting of Deviations

For each affected boiler, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. At a minimum, these notifications shall include a description of such deviations, including whether they occurred during startup or malfunction/breakdown, and a discussion of the possible cause of such deviations, any corrective actions and any preventative measures taken. [Section 39.5(7) (f) (ii) of the Act]

- i. Notification and reporting as specified in Condition 7.1.10-3(a) for certain deviations from the PM limit in Condition 7.1.4(b).

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- ii. Notification and reporting as specified in Condition 7.1.10-3(a) for certain deviations from the opacity limit in Condition 7.1.4(a).
- iii. Notification with the reports required by Conditions 7.1.10-2(b), (d) and (e) for deviations from Condition 7.1.4(a), (b), (c) and (e) and from the requirements of Condition 7.1.8 for emissions monitoring.
- iv. Notification with the quarterly reports required by Condition 7.1.10-2(a) for deviations not addressed above by Condition 7.1.10-1(a) (i), (ii) or (iii), including deviations from other applicable requirements, e.g., the applicable CO emission standards, work practice requirements, and recordkeeping requirements.

b. Periodic Reporting of Deviations

The quarterly reports required by Condition 7.1.10-2(a) shall include the following information for the affected boilers related to deviations from permit requirements during the quarter. [Sections 39.5(7) (a) and (f) (i) of the Act]

- i. A listing of all instances of deviations that have been reported in writing to the Illinois EPA as provided by Condition 7.1.10-1(a) (i) and (ii), including identification of each such written notification or report. For this purpose, the Permittee need not resubmit copies of these previous notifications or reports but may elect to supplement such material.
- ii. Detailed information, as required by Condition 7.1.10-1(a) (iii) or (iv), for all other deviations not addressed in the above listing.

7.1.10-2 Reporting Requirements - Regular Reports

a. Quarterly Reports

In place of the semi-annual monitoring reports otherwise required by Condition 8.6.1, the Permittee shall submit quarterly reports to the Illinois EPA pursuant to Sections 39.5(7) (a) and (f) of the Act.

- i. These reports shall include the following information for operation of each affected boiler during the quarter:
  - A. The total operating hours, as also reported in accordance with 40 CFR Part 75.

- B. A discussion of significant changes in the fuel supply to the boilers, if any, including changes in the source of the residual fuel oil, the introduction of new fuel materials other than residual oil or distillate oil, and changes in the source of such other fuel materials or the maximum rate at which they will be fired.
  - C. A list of the startups of the affected boilers, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.1.9(g) (ii) (C) for each startup for which such records were required.
  - D. The average number of hours that the affected boilers operated and whether the criterion for performance of emission testing in Condition 7.1.7(a) (i) was met.
  - E. A copy of the records required by Condition 7.1.9(b) (iii) (B) identifying the date and time that the upper bound, as specified above in Condition 7.1.9(b) (ii), was exceeded, with operating condition if startup, malfunction, breakdown, or shutdown; with further explanation of the incident and whether particulate matter emissions may have exceeded the PM limit.
- ii. These reports shall include the information for SO<sub>2</sub>, NO<sub>x</sub>, and PM emissions and opacity from the affected boiler during the quarter and the operation of required continuous monitoring systems specified by Conditions 7.1.10-2(b), (c) and (d).
  - iii. These reports shall include the information for the affected boiler related to deviations during the quarter specified by Condition 7.1.10-1(b).
  - iv. A. These reports shall be submitted after the end of every calendar quarter as follows:

Monitoring Period	Submittal Deadline
January - March	May 15
April - June	August 15
July - September	November 15

October - December

February 15

- B. Notwithstanding the above, the first four quarterly reports required pursuant to this permit shall be submitted no later than 60 days after the end of each calendar quarter.

b. Reporting of SO<sub>2</sub> Emissions

Pursuant to Sections 39.5(7)(a) and (f) of the Act, the Permittee shall report the following information for the affected boilers to the Illinois EPA with its quarterly reports pursuant to Condition 7.1.10-2(a):

- i. The following information for each period when SO<sub>2</sub> emissions were in excess of the limitation in Condition 7.1.4(c), including the measured emission rate:

- A. The duration of the excess emissions.
- B. A copy of the records for the excess emissions, as maintained pursuant to Conditions 7.1.9(a) and (c).
- C. A detailed explanation of the cause of the excess emissions.
- D. A detailed explanation of the corrective actions and actions taken to lessen the emissions.

c. Reporting Related to NO<sub>x</sub> Emissions

Pursuant to Sections 39.5(7)(a) and (f) of the Act, the Permittee shall report the following information for the affected boilers to the Illinois EPA with its quarterly reports pursuant to Condition 7.1.10-2(a):

- i. Summary information on the performance of the continuous monitoring system (CMS), including the information for a "Summary Report" specified by 40 CFR 60.7(d). When the CMS was not inoperative, repaired or adjusted except for routine calibration checks, this shall be stated in the report.

d. Reporting Related to Opacity and PM Emissions

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the Permittee shall report the following information for the affected boilers to the Illinois EPA with its quarterly report pursuant to Condition 7.1.10-2(a):

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- i. Summary information on the performance of the opacity monitoring systems and excess emissions, as required for a "Summary Report" in accordance with 40 CFR 60.7(d). When no excess opacity occurred or the continuous opacity monitoring system was not inoperative, repaired or adjusted except for zero and span checks, this shall be stated in the report.
- ii. The operating status of the opacity monitoring systems, including the dates and times of any periods during which a system was inoperative, if requested by the Illinois EPA or the opacity monitoring system downtime was more than 5 percent of the total operating time for the affected boilers during the quarter.
- iii. The following information for each period when opacity was in excess of the limitation in Condition 7.1.4(a):
  - A. The starting dates and time of the exceedance.
  - B. The duration of the excess opacity.
  - C. The magnitude of excess opacity, based on six minute average opacity, including:
    - I. The percent opacity for each six-minute period.
    - II. The start and stop time of each six-minute period in excess of the limitation.
  - D. A detailed explanation of the cause of excess opacity, including whether such excess opacity occurred during startup, malfunction or breakdown of a boiler.
  - E. A detailed explanation of the corrective actions and actions taken to lessen the opacity.
  - F. Identification of the previous report for the incident submitted to the Illinois EPA pursuant to Condition 7.1.10-1(b)(ii). For this purpose, the Permittee need not resubmit copies of such report but may elect to supplement such material.
  - G. A summary of the records required by Condition 7.1.9(f)(ii) for incidents when operation of the affected boiler continued during malfunction or breakdown

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with excess emissions that are not addressed by individual reports submitted pursuant to Condition 7.1.10-1(b) (ii).

- iv. The following information for periods when PM emissions were in excess of the limitation in Condition 7.1.4(b). If there were no such exceedances during the reporting period, the quarterly report shall so state.
  - A. A summary of information for each period of exceedance that includes:
    - I. The starting date and time of the exceedance.
    - II. The duration of the exceedance.
    - III. The magnitude of the exceedance.
    - IV. The percent opacity measured for each six-minute period during the exceedance.
    - V. The means by which the exceedance was indicated or identified, in addition to the level of opacity.
    - VI. A detailed explanation of the cause of the exceedance, including whether the exceedance occurred during startup, malfunction or breakdown.
    - VII. A detailed explanation of the corrective actions and actions taken to lessen the emissions.
  - B. Identification of the previous reports for the incidents submitted to the Illinois EPA pursuant to Condition 7.1.10-1(b) (ii). For this purpose, the Permittee need not resubmit copies of such report but may elect to supplement such material.
- v. The following general information related to opacity and PM exceedances during the calendar quarter:
  - A. Further information for each type of reoccurring exceedance including: a discussion of any circumstances or events during the quarter that generally affected the number or magnitude of such exceedances; a general discussion of the



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effectiveness of the corrective actions that were taken in response to such exceedances; and a general discussion of any further actions that are being considered to address such exceedances.

- B. Further information for any new type(s) of opacity exceedances that occurred during the quarter including: a general narrative description for the type of exceedance; a general explanation of the cause(s) for such exceedances, with a discussion of contributing factors; explanation of the corrective actions that have been taken for such exceedances, including the reasons that the selected actions were taken and the likely effectiveness of those actions. For this purpose, a new type of exceedance event is one that has not been addressed in the preceding four opacity reports.
  - C. A summary of any maintenance, repair or other activities that were completed during the quarter that should generally act to significantly reduce the number or magnitude of opacity exceedances, including a description of each such activity, the date completed, an explanation of its relationship to opacity exceedances, and a description of its anticipated effect on opacity exceedances.
  - D. Other information that is relevant to generally explaining the number and magnitude of opacity and PM exceedances during the quarter.
- vi. A glossary of common technical terms used by the Permittee in its reports pursuant to this Condition 7.1.10-2(d), if different from those used pursuant to Condition 7.2.10-2(d), including the definitions for the categories used by the Permittee to classify exceedance events.
- e. Reporting of NO<sub>x</sub> Emissions for the Ozone Control Period

The Permittee shall submit a report to the Illinois EPA by November 30 of each year that demonstrates whether the affected boilers have complied with Condition 7.1.4(e), pursuant to 35 IAC 217.712(d) and (e).

- i. If the Permittee is demonstrating compliance with Condition 7.1.4(e) (i) (A), this report shall contain the information specified by 35 IAC 217.712(d) including the heat input and NOx emissions of the unit for the ozone control period.
- ii. If the Permittee is demonstrating compliance by means of "NOx averaging" as authorized by Condition 7.1.4(e) (i) (B), this report shall contain the information specified by 35 IAC 217.712(e) and other related information as follows:
  - A. In all cases, for the affected boilers that are participating in the NOx averaging demonstration, the Permittee shall report the following:
    - I. Identification of the other EGU that are participating in the demonstration, including identification of the source that is the lead party for the demonstration and that is also taking responsibility for submitting the information required by Condition 7.1.10-2(f) below.
    - II. A statement confirming that the unit is eligible to participate in an averaging demonstration, i.e., the unit is included in only one demonstration [35 IAC 217.708(d)] and the Permittee is complying with applicable recordkeeping and reporting requirements for the unit, pursuant to 35 IAC 217.708(c) and (g).
    - III. The average NOx emission rate for the unit, with calculations and supporting information, as required by 35 IAC 217.712(e) (2) and (3), including the heat input and NOx emissions of the unit for the ozone control period.
    - IV. A statement whether the unit would show compliance on its own in the absence of averaging.
  - B. If the Permittee is the lead party for a NOx averaging demonstration, the Permittee shall report the following:

- I. Copies of the information submitted by other parties for the EGU participating in the demonstration, which include all material required by Condition 7.1.10-2(f) above (unless or except as this information is provided with the submittal by a person who is a responsible official for the EGU participating in the demonstration).
  - II. The averaged NOx emission rate for all EGU participating in the demonstration, with complete supporting calculations, as required by 35 IAC 217.712(e) (1).
  - III. A statement whether the demonstration shows compliance.
- f. Submittal of Supplemental Information Related to NOx Emissions during the Ozone Control Period
- The Permittee shall submit copies of any records and data required by 35 IAC 217.712 to the Illinois EPA within 30 days after receipt of a written request by the Illinois EPA. [35 IAC 217.712(g)]
- g. Acid Rain Program Reporting

Pursuant to Section 412 of the Clean Air Act and 40 CFR Parts 72 and 75, the source is subject to the reporting requirements of 40 CFR Part 75, which includes General Provisions; Notifications; Initial Certification or Recertification Application; Quarterly Reports; and Opacity Reports. [See Condition 6.2.3.] Pursuant to Section 39.5(17)(m) of the Act, the designated representative of the source must concurrently submit to the Illinois EPA in the same electronic format specified by the USEPA, the data and information submitted to USEPA on a quarterly basis pursuant to 40 CFR 75.64.

7.1.10-3 Reporting Requirements - Notifications

- a. Reporting of Continued Operation During Malfunctions And Breakdowns
- Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA, Compliance Section and Regional Office, concerning incidents when operation of an affected boiler continued with excess emissions, including

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continued operation during malfunction or breakdown as addressed by Condition 7.1.3(c). These requirements do not apply to such excess emissions, if any, that occur during startup or shutdown of the affected boilers.

- i. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the applicable PM emissions standard (Condition 7.1.4(b)) could be exceeded or in which the opacity from an affected boiler exceeds 30 percent for five or more 6-minute averaging periods unless the Permittee has begun the shutdown of the affected boiler by such time. (Otherwise, as related to opacity, if opacity during an incident only exceeds 30 percent for no more than five 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.1.10-2(a)(iii) and (d).)
- ii. Upon conclusion of each incident in which the applicable PM emission standard may have been exceeded or in which exceedances of the opacity standard are two hours or more in duration, the Permittee shall submit a follow-up report to the Illinois EPA, Compliance Section and Regional Office, within 15 days that includes: a detailed description of the incident and its cause(s); an explanation why continued operation of an affected boiler was necessary; the length of time during which operation continued under such conditions, until repairs were completed or the boiler was taken out of service; a description of the measures taken to minimize and correct deficiencies with chronology; and a description of the preventative measures that have been and are being taken.

#### 7.1.11 Anticipated Operating Scenarios/Operating Flexibility

The Permittee is authorized to make the following operational changes with respect to the affected boiler without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7)(a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements; to properly obtain a construction permit in a timely manner for any activity constituting construction or modification as defined in 35 IAC 201.102 or, as applicable, 40 CFR 52.21(a)(2) or 35 IAC 203.207; and to comply with other legal requirements that apply to such a change:

- a. Operation of additional air pollution control

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equipment, which is addressed by a separate construction permit.

- b. Residual fuel oil or a mix of residual fuel oil from different suppliers.
- c. Firing of the following materials in conjunction with firing of standard fuels, provided that such materials can be accommodated with the existing fuel handling system and the burners in the affected boiler, and that such materials do not make up more than 10 percent by weight of the fuel supply to the boiler on a quarterly basis:
  - i. Other process wastes generated at the source in addition to used oil and boiler cleaning residue.
  - ii. Alternative fuels that do not constitute waste and were not generated from municipal waste or hazardous waste, such as used oil.

Note: Other requirements unrelated to air pollution control may apply to firing of alternative fuels, such as Standards for Management of Used Oil, 35 IAC Part 739.

#### 7.1.12 Compliance Procedures

- a.
  - i. Compliance with the opacity limit of Condition 7.1.4(a) (30 percent opacity) is addressed by the average opacity calculated from 6-minute periods of opacity measurements from the continuous opacity monitoring systems operated in accordance with the requirements of Condition 7.1.8(a) and the recordkeeping required by Condition 7.1.9.
  - ii. Notwithstanding Condition 7.1.12(a) (i) above, should the Permittee choose to rely on 35 IAC 212.123(b) to allow opacity greater than 30 percent (6-minute average) from the affected boilers, the Permittee shall do the following:
    - A. Maintain records for each stack serving the affected boilers of short-term opacity data, that is, either a continuous chart recording of measured opacity, a record of discrete measurements of opacity taken no more than 10 seconds apart, or a record of 1-minute average opacity data determined from six or more data points equally spaced during each minute period, to determine whether opacity from the stack exceeded 30 percent opacity.

- B. Have the capability to review such short-term opacity data for the stacks to identify:
    - I. Any hour in which opacity exceeded 30 percent, and then, in such hour:
      - (1) the duration of opacity in excess of 30 percent; (2) whether opacity ever exceeded 60 percent; and (3) whether the duration of opacity in excess of 30 percent was more than 8 minutes in aggregate.
    - II. For each stack, whether opacity in excess of 30 percent occurred in more than three hours in a 24 hour period.
  - C. For other emission units at the source, have the ability to review short-term opacity data representative of such units during hours in which the opacity of a stack for the affected boilers on a short-term basis may exceed 30 percent, to confirm that the opacity of any other unit at the source did not exceed 30 percent in any minute during an hour in which the short-term opacity of a stack for the affected boiler may have exceeded 30 percent.
  - D. In the reports required by Condition 7.1.10-2(d), confirm that the relevant short-term opacity data, reviewed as above, shows that the terms of 35 IAC 212.123(b) are satisfied, when 35 IAC 212.123(b) is relied upon as the basis to claim that an affected boiler did not violate Condition 7.5.4(a) even though opacity on a 6-minute average exceeded 30 percent.
  - E. Notify the Illinois EPA at least 15 days prior to changing its procedures associated with reliance on 35 IAC 212.123(b), to allow the Illinois EPA to review the new recordkeeping and data handling practices planned by the Permittee.
- b. Compliance with PM emission limit of Condition 7.1.4(b) is addressed by continuous opacity monitoring in accordance with Condition 7.1.8(a), PM testing in accordance with Condition 7.1.7, and the recordkeeping required by Condition 7.1.9.

- c. Compliance with the SO<sub>2</sub> emission limit of Condition 7.1.4(c) is addressed by requirements for fuel flow in accordance with Condition 7.1.8(c) and the recordkeeping required by Condition 7.1.9.

Note: For this purpose, complete conversion of sulfur to SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu.

- d. Compliance with the CO emission limit of Condition 7.1.4(d) is addressed by the required work practices in Condition 7.1.6(a), emission testing in accordance with Conditions 7.1.7 and the recordkeeping required by Condition 7.1.9.
- e. Compliance with NO<sub>x</sub> emission limit of Condition 7.1.4(e) is addressed by the continuous emissions monitoring and recordkeeping required by Conditions 7.1.8(b) and 7.1.9, respectively.
- f. Compliance with the work practices required by Condition 7.1.6(a) is addressed by the Recordkeeping required by Condition 7.1.9.

7.2 Coal-Fired Boiler (Boiler 9)

7.2.1 Descriptions

The Permittee operates a coal-fired boiler for electric generation. Construction of the boiler began in 1975. The steam turbine generator associated with the boiler has a nominal electrical capacity of 447 MW. In addition to coal, this boiler uses distillate fuel oil as auxiliary fuel during startup and for flame stabilization. Periodically small amounts of used oil or boiler cleaning residue, and other similar type of material are fired with the coal in this unit. This boiler also has the capability to fire a combination of coal and distillate fuel oil (Mode 2) as its principal fuel.

Nitrogen oxide (NOx) emissions from the boiler are controlled with both combustion control and add-on control, i.e., Over Fire Air Management, Low NOx burners and In-Duct Selective Catalytic Reduction (SCR) System, which were installed pursuant to Construction Permits 00020091 and 00090055, respectively. Particulate matter (PM) emissions from the boiler are controlled by an electrostatic precipitator (ESP), with flue gas conditioning used as needed to facilitate control of PM emissions.

7.2.2 List of Emission Equipment and Pollution Control Equipment

Unit ID	Description	Emission Control Equipment
Boiler 9	Babcock & Wilcox Radiant Boiler (Serial No. RB-540) Nominal Rating 447 MW (1978)	Over Fire Air Management, Low NOx burners, In-Duct SCR and ESP with Flue Gas Conditioning

Note: This boiler may also be referred to as Havana Unit 6 based on the designation of the associated steam turbine generator.

7.2.3 Applicability Provisions

- a. i. The "affected boiler" for the purpose of these unit-specific conditions, is the boiler described in Conditions 7.2.1 and 7.2.2.
- ii. The affected boiler is also an "affected facility" for purposes of the New Source Performance Standards (NSPS) for Fossil-Fuel Fired Steam Generators for Which Construction Is Commenced After August 17, 1971, pursuant to 40 CFR 60.40. As an affected facility, the boiler is subject to applicable requirements of



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the NSPS, 40 CFR 60 Subpart D and related requirements in the NSPS, 40 CFR 60 Subpart A, General Provisions.

- iii. For purposes of certain unit-specific conditions related to the Schedule (Attachment 6), the affected boiler is also part of a "Unit" as defined by Paragraph 50 of the Schedule, which defines a "Unit" to mean collectively, the boiler that produce steam for the steam turbine (i.e., an affected boiler), the coal pulverizer, stationary equipment that feeds coal to the boiler, the steam turbine, the generator, the equipment necessary to operate the generator, steam turbine and boiler, and all ancillary equipment, including pollution control equipment.

b. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate the affected boiler in violation of the applicable standards in Condition 7.2.4(f) (35 IAC 212.122) for opacity, Condition 7.2.4(b) (35 IAC 212.204) for PM, Condition 7.2.4(d) (35 IAC 216.121) for CO, and Condition 7.2.4(e) (35 IAC 217.121) for NOx during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual startups and frequency of startups."

- i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups.
- ii. The Permittee shall conduct startup of the affected boiler in accordance with written procedures prepared by the Permittee and maintained in the control room for the boiler, that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
  - A. Use of auxiliary fuel burners to heat the boiler prior to initiating burning of coal.
  - B. Timely energization of the electrostatic precipitator as soon as this may be safely accomplished without damage or

risk to personnel or equipment.

Note: Conditions 7.2.6-2(b), (c) and (d), if applicable, also set requirements that apply to startups, pursuant to the Schedule.

- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Conditions 7.2.9-3(a) and 7.2.9-4(a) and Condition 7.2.10-2(a).
- iv. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

c. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of the affected boiler in violation of the applicable standards of Condition 7.2.4(f) (35 IAC 212.122) for opacity, Condition 7.2.4(b) (35 IAC 212.204) for PM, Condition 7.2.4(d) (35 IAC 216.121) for CO, and Condition 7.2.4(e) (35 IAC 217.121) for NO<sub>x</sub> in the event of a malfunction or breakdown of the affected boiler, including the coal pulverizer, the ESP including flue gas conditioning), or the ash removal system. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such would be required to provide essential service or to prevent injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or to prevent injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practicable reduce boiler load, repair the affected boiler, remove the affected

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boiler from service or undertake other action so that excess emissions cease.

Note: Conditions 7.2.6-2(b), (c) and (d), if applicable, also set requirements that apply to malfunction and breakdown, pursuant to the Schedule.

- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Conditions 7.2.9-3(a) and 7.2.9-4(b) and Conditions 7.2.10-2(d) and 7.2.10-3(a). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the boiler out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

#### 7.2.4 Applicable Regulatory Emission Standards

##### a. Federal NSPS standards

- i. The affected boiler is subject to New Source Performance Standards (NSPS) for Fossil Fuel Fired Steam Generators, 40 CFR 60, Subpart D.
- ii. Pursuant to the NSPS, emissions from the affected boiler shall not exceed the following emission standards:

<u>Pollutant</u>	<u>Standard (lbs/mmBtu)</u>	<u>Rule</u>
------------------	---------------------------------	-------------

PM	0.10	40 CFR 60.42(a) (1)
SO <sub>2</sub>	1.20	40 CFR 60.43(a) (2)
NOx	0.70	40 CFR 60.44(a) (3)

- iii. Opacity from the affected boiler shall not exceed 20 percent, as measured on a six minute average, except for one 6 minute period per hour of not more than 27 percent pursuant to NSPS, 40 CFR 60.42(a) (2).
  - iv. Pursuant to 40 CFR 60.8(c) and 60.11(c), the above emission standards do not apply during startup, malfunction, and shutdown, as defined by 40 CFR 60.2. Notwithstanding this provision, pursuant to 40 CFR 60.7(b) and (c), exceedances of these limitations during startup, malfunction, and shutdown are still subject to recordkeeping and reporting requirements under the NSPS.
- b. The emissions of PM from the affected boiler shall not exceed 0.1 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 212.204.
- Note: Condition 7.2.6-1(b) sets PM emission limits for the affected boiler, pursuant to the Schedule, that will be more stringent than the above limit when it takes effect.
- c. The emissions of SO<sub>2</sub> from the affected boiler shall not exceed 1.2 lb/mmBtu of actual heat input, pursuant to 35 IAC 214.121(a).
- Note: Condition 7.2.6-1(a) (ii) sets an SO<sub>2</sub> emission limit for the affected boiler (i.e., 0.100 lb/mmBtu, on a 30-day rolling average basis) pursuant to the Schedule, that will be more stringent than the above limit when it takes effect.
- d. The emissions of CO from each affected boiler shall not to exceed 200 ppm, corrected to 50 percent excess air, pursuant to 35 IAC 216.121.
- e. The emissions of NOx from the affected boiler shall not exceed 0.7 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 217.121(d).
- Note: Condition 7.2.6-1(c) sets an NOx<sub>2</sub> emission limit for the affected boiler (i.e., 0.100 lb/mmBtu, on a 30-day rolling average basis) pursuant to the Schedule, that is more stringent than the above limit.
- f. The affected boiler is subject to 35 IAC 212.122,

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which provides that no person shall cause or allow the opacity from a new fuel combustion emission unit with a heat input greater than 250 mmBtu/hr to exceed 20 percent, except as provided by 35 IAC 212.122(b).

- g. The affected boiler is subject to the following requirements related to NOx emissions pursuant to 35 IAC Part 217 Subpart V:

- i. During each ozone control period (May 1 through September 30):
- A. The emissions of NOx from the affected boiler shall not exceed 0.25 lb/mmBtu of actual heat input based on a ozone control period average, for that unit, pursuant to 35 IAC 217.706(a), or
  - B. If the Permittee elects to participate in a NOx averaging demonstration, the emissions of NOx from the affected boiler and other eligible EGU that are participating in such demonstration shall not exceed 0.25 lbs/mmBtu of actual heat input, as averaged for the ozone control period for the EGU participating in the demonstration, pursuant to 35 IAC 217.708(a) and (b). For this purpose, other eligible EGU include: (1) other EGU at this source, which are also authorized by this permit to participate in a NOx averaging demonstration, and (2) other EGU that are authorized to participate in a NOx averaging plan by a CAAPP permit or other federally enforceable permit issued by the Illinois EPA to the owner or operator of those EGU.

Note: Given the emission determination methods specified by 35 IAC 217.710, the emissions of NOx for purposes of these standards are generally calculated in accordance with the federal Acid Rain Program and are different from the emissions determined for purposes of the NOx Trading Program.

- ii. If the Permittee elects to have the affected boiler comply by participation in a NOx averaging demonstration as provided for and authorized above:
- A. The affected boiler shall be included in only one NOx averaging demonstration during an ozone control period, pursuant to 35 IAC 217.708(d).
  - B. The NOx averaging demonstration shall

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only include other EGU that are authorized through a federally enforceable permit to participate in a NO<sub>x</sub> averaging demonstration and for which the owner or operator of the EGU maintains the required records, data and reports and submits copies of such records, data, and reports to the Illinois EPA upon request, pursuant to 35 IAC 217.708(c) and (g).

- C. The effect of failure of the NO<sub>x</sub> averaging demonstration to show compliance shall be that the compliance status of the affected boiler shall be determined pursuant to Condition 7.2.4(g)(i)(A) as if the NO<sub>x</sub> emission rates of the affected boiler were not averaged with other EGU, pursuant to 35 IAC 217.708(f).

Note: The above requirements also apply as a matter of rule to EGUs other than the affected boiler if the owner or operator of such other EGUs elects to participate in a NO<sub>x</sub> averaging demonstration.

- h. The affected boiler is subject to a NO<sub>x</sub> emission standard pursuant to Section 407 of the Clean Air Act and 40 CFR Part 76, as addressed in Condition 6.2.2 and Attachment 5 of this permit.

#### 7.2.5 Non-Applicability of Regulations of Possible Concern

- a. i. This permit is issued based on the affected boiler not being subject to the NSPS standards for firing of oil, i.e., 40 CFR 60.43(a)(1) for SO<sub>2</sub> and 40 CFR 60.44(a)(2) for NO<sub>x</sub>, when the boiler is using solid fuel (coal) as its principal fuel and distillate fuel oil is only used in incidental amounts for specific purposes, such as startup, opacity reduction emission mitigation, flame stabilization, outage of a coal pulverizer, or other temporary interruption in solid fuel supply, as associated with routine firing of solid fuel.
- ii. If the affected boiler is not using solid fuel (coal) as its principal fuel, the affected boiler shall comply with the requirements of the following NSPS standards that address burning a combination of fuels:
- A. For SO<sub>2</sub>, 40 CFR 60.43(b).
- B. For NO<sub>x</sub>, 40 CFR 60.44(b).

b. i. The Permittee is shielded from the following rules, which address burning a combination of fuels, for the affected boiler when the boiler is using solid fuel as its principal fuel. This is because incidental use of other fuels generally serves as a good combustion practice for firing of solid fuel and does not provide a decrease in emissions that can be used to reduce the emission rate that must be achieved for the emissions associated with combustion of solid fuel.

A. 35 IAC 212.207 for PM.

B. 35 IAC 214.162 for SO<sub>2</sub>.

C. 35 IAC 217.121(e) for NO<sub>x</sub>.

ii. If the affected boiler is not using solid fuel as its principal fuel, the affected boiler shall comply with the requirements of the following conditions. During such periods, for PM emissions, Condition 7.2.5(b)(ii)(A), shall substitute for Condition 7.2.4(b). For SO<sub>2</sub> emissions, Condition 7.2.5(b)(ii)(B) shall supplement Condition 7.2.4(c). For NO<sub>x</sub> emissions, Condition 7.2.5(b)(ii)(C), shall substitute for Condition 7.2.4(e).

A. The emissions of PM from the affected boiler in any one hour period shall not exceed the amount, in lb/hr, allowed by the formula in 35 IAC 212.207. For this purpose, the applicable PM standard for heat input from liquid fuel shall be 0.1 lb/mmBtu, pursuant to 35 IAC 212.206 and 212.207.

B. The emissions of SO<sub>2</sub> from the affected boiler in any one hour period shall not exceed the amount, in lb/hr, allowed by the formula in 35 IAC 214.162. For this purpose, the applicable SO<sub>2</sub> standards for heat input from residual fuel oil and distillate fuel oil shall be 0.8 and 0.3 lb/mmBtu, respectively, pursuant to 35 IAC 214.121(b)(1), 214.121(b)(2), and 214.162.

C. The emissions of NO<sub>x</sub> from the affected boiler shall not exceed the amount, in lb/hr, allowed by the formula in 35 IAC 217.121(e).

iii. For the purpose of the above conditions, the

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affected boiler shall be considered to be using solid fuel as its principal fuel if the use of natural gas and/or fuel oil is incidental to the use of coal, occurring for specific purposes associated with routine firing of solid fuel, such as startup, opacity reduction emission mitigation, flame stabilization, outage of a coal pulverizer, or other temporary interruption in solid fuel supply. The boiler shall not be considered to be using solid fuel as its principal fuel if the use of natural gas and/or fuel oil is more than incidental to the firing of coal in the boiler or the use of coal is incidental to the operation of the boiler.

- iv. The Permittee shall notify the Illinois EPA if the status of the affected boiler changes to or from using solid fuel as its principal fuel. This notification shall be provided at least 7 days in advance of such change in status unless the change results from a sudden event that precludes such advance notification, in which case notification shall be provided as soon as practicable prior to the change.
- c. Pursuant to 35 IAC 201.403(a), the Permittee is not subject to the requirements of 35 IAC Part 201 Subpart L for opacity monitoring because the Permittee must conduct opacity monitoring on the affected boiler in accordance with the NSPS.

7.2.6-1 Emission Limitations Contained in the Schedule

- a. i. The SO<sub>2</sub> emission rate of the affected boiler shall not exceed the limit in Paragraph 72 of the Schedule (Attachment 6), (i.e., 1.200 lb/mmBtu, as a 30-day rolling average emission rate), with emissions determined by use of an SO<sub>2</sub> CEMS as provided in Paragraph 4, 8 and 82 of the Schedule. [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
- ii. Effective no later than December 31, 2012, the SO<sub>2</sub> emission rate of the affected boiler shall not exceed the limit in Paragraph 66 of the Schedule (Attachment 6), (i.e., 0.100 lb/mmBtu, as a 30-day rolling average emission rate), with emissions determined by use of an SO<sub>2</sub> CEMS as provided in Paragraph 4, 8 and 82 of the Schedule. [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
- b. i. The PM emission rate of the affected boiler shall be no greater than either: (1) the limit specified in Paragraph 86 of the Schedule, i.e., 0.030 lb/mmBtu, by the date specified in



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Paragraph 86, i.e., no later than December 31, 2005; or in the alternative (2) the limit set in accordance with Paragraph 88 of the Decree by the applicable date set under Paragraph 88 of the Decree, (which provides for a PM limit to be set for a Unit pursuant to a Pollution Control Upgrade Analysis that is prepared and completed by the Permittee and approved by EPA and other parties to the Decree). Emission testing conducted to determine compliance with these limits shall use methods and procedures as specified in Paragraph 90 of the Schedule, (which, among other matters, specifies use of USEPA Reference Method 5 or an alternative method approved by USEPA and the State of Illinois for such measurements). [Paragraph 158 of the Consent Decree and Section 39.5(7)(a) of the Act]

- ii. Effective no later than December 31, 2012, the PM emission rate of the affected boiler shall not exceed the limit in Paragraph 85 of the Schedule, (i.e., 0.015 lb/mmBtu). Emission testing conducted to determine compliance with these limits shall use methods and procedures as specified in Paragraph 90 of the Schedule. [Paragraph 158 of the Consent Decree and Section 39.5(7)(a) of the Act]
- c. The NO<sub>x</sub> emission rate of the affected boiler shall be no greater than the limit specified in Paragraph 51 of the Schedule, (i.e., 0.100 lb/mmBtu, as a 30-day rolling average emission rate), with emissions determined by use of a NO<sub>x2</sub> CEMS as provided in Paragraph 4, 8 and 65 of the Schedule. [Paragraph 158 of the Consent Decree and Section 39.5(7)(a) of the Act]

#### 7.2.6-2 Work Practices and Operational Requirements

- a. i. As part of its operation and maintenance of the affected boiler, the Permittee shall perform formal "combustion evaluation" on the boiler on at least a quarterly basis, pursuant to Section 39.5(7)(d) of the Act. These evaluations shall consist of diagnostic measurements of the concentration of CO in the flue gas of the affected boiler, with adjustments and preventative and corrective measures for the boiler's combustion systems to maintain efficient combustion.
- ii. At all times, the Permittee shall maintain and operate the affected boiler, including associated air pollution control equipment, in a manner consistent with good air pollution

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control practice for minimizing emissions, as required pursuant to the NSPS, 40 CFR 60.11(d).

- b. i. The Permittee shall operate the SCR on the affected boiler in accordance with Paragraph 55 of the Schedule (which generally requires that this SCR be operated when the Unit it serves is in operation, consistent with technological limitations, manufacturers' specifications, and good engineering and maintenance practices, and that during periods in which the SCR is not operational, the Permittee must minimize emissions to the extent reasonably practicable). [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
- ii. The Permittee shall operate the low NOx burners and overfire air technology on the affected boiler in accordance with Paragraph 56 of the Schedule (which generally requires that these devices be operated and maintained at all the times that the Unit is in operation to minimize emissions of NOx to the extent reasonably practicable). [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
- iii. The Permittee shall operate and maintain the affected boiler and associated NOx control equipment in accordance with the NOx control plan maintained by the Permittee pursuant to Condition 7.2.9-2(b) (i) (A). [Sections 39.5(7) (a) and (d) of the Act]
- c. i. The Permittee shall operate and maintain each PM control device on the affected boiler in accordance with Paragraphs 83 and 87 of the Schedule (which generally require that these devices be operated to maximize PM emission reductions at all times when the Unit is in operation to the extent reasonably practicable and specify certain minimum operating and maintenance practices that the Permittee must implement for this purpose). [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
- ii. The Permittee shall operate and maintain the ESP on the affected boiler in accordance with Paragraph 84 of the Schedule (which requires that the Permittee implement the practices recommended by the PM Emission Control Optimization Studies performed in accordance with Paragraph 84 of the Decree or other alternative actions approved by USEPA in accordance with this paragraph of the Decree). [Paragraph 158 of the Consent Decree and

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## Section 39.5(7) (a) of the Act]

- iii. If the affected boiler is subject to a limitation for PM set pursuant to Paragraph 88 of the Decree, as addressed in Condition 7.2.6-1(b) (i), the Permittee shall operate the affected boiler and associated PM control device in accordance with Paragraph 88(c) of the Schedule. [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
- iv. The Permittee shall operate and maintain the affected boiler and Unit, and associated PM control equipment in accordance with the PM control plan maintained by the Permittee pursuant to Condition 7.2.9-2(b) (ii) (A). [Sections 39.5(7) (a) and (d) of the Act]
- v.
  - A. Effective no later than December 31, 2012, the Permittee shall not operate the affected boiler and the associated Unit unless the requirements of Paragraph 85 of the Schedule with respect to the addition of a baghouse to the affected boiler have been fulfilled. [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
  - B. When the requirement for addition of a baghouse to the affected unit have been fulfilled, the requirements of Condition 7.2.6(c) (i) with respect to operation of the ESP on the affected boiler shall not apply as provided by Paragraph 87 of the Schedule (which generally only requires continued operation of the ESP if it was operated with the baghouse during the previous test for PM emissions).
- d.
  - i. Effective no later than December 31, 2012, the Permittee shall not operate the affected boiler and the associated Unit unless the requirements of Paragraph 66 of the Schedule with respect to addition of an SO<sub>2</sub> control technology to the affected boiler have been fulfilled. [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]
  - ii. The Permittee shall operate and maintain the additional SO<sub>2</sub> control technology on the affected boiler, as addressed above, in accordance with Paragraph 69 of the Schedule (which generally requires that this technology be operated when the Unit it is in operation, consistent with technological limitations, manufacturers' specifications, and good

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engineering and maintenance practices, and that during periods in which the technology is not operational, the Permittee must minimize emissions to the extent reasonably practicable). [Paragraph 158 of the Consent Decree and Section 39.5(7) (a) of the Act]

- iii. Effective no later than December 31, 2012, the Permittee shall operate and maintain the additional SO<sub>2</sub> control technology of the affected boiler in accordance with the SO<sub>2</sub> control plan maintained by the Permittee pursuant to Condition 7.2.9-2(b) (iii) (A). [Sections 39.5(7) (a) and (d) of the Act]

#### 7.2.7 Emission Testing Requirements

Pursuant to Sections 39.5(7) (a) and (d) (ii) of the Act, the Permittee shall have the PM and CO emissions of the affected boiler measured as specified below:

- a. i. PM emission measurements shall be made between January 1, 2005 and December 31, 2005.

Note: This Condition and Condition 7.2.7(a) (iii) and (v) establish requirements for the timing of PM emission measurements that are consistent with the requirements of Paragraphs 89 and 119 of the Decree with respect to the timing of PM emission tests.

- ii. PM emission measurements shall be made within 90 days of operating the affected boiler for more than 30 hours total in a calendar quarter at a load\* that is more than 2 percent higher than the greatest load on the boiler, during the most recent set of PM tests on the affected boiler in which compliance is shown (refer to Condition 7.2.7(e) (iii) (D)), provided, however, that the Illinois EPA may upon request of the Permittee provide more time for testing (if such time is reasonably needed to schedule and perform testing or coordinate testing with seasonal conditions).

\* For this purpose, load shall be expressed in terms of either gross megawatt output or steam flow, consistent with the form of the records kept by the Permittee pursuant to Condition 7.2.9(a).

- iii. After Calendar Year 2005, the Permittee shall conduct periodic stack tests (measurements) for PM emissions from the affected boiler in accordance with Paragraph 89 of the Schedule (which generally provides that: (1) Measurements shall be conducted annually unless

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the results of the two most recently completed tests demonstrate that PM emissions are equal to or less than 0.015 lb/mmBtu; and (2) Measurements conducted by the Permittee to satisfy other permit requirements may satisfy this requirement for periodic testing). For this purpose, such PM measurements must be conducted in accordance with the methods and procedures specified in Paragraph 90 of the Schedule.

- iv. Measurements of CO emissions shall be made as follows:
  - A. In conjunction with the initial measurements of PM emissions as required by Condition 7.2.7(a)(i) (unless this measurement is conducted prior to effective date of this condition), if a measurement of CO emissions is not otherwise performed earlier in conjunction with a relative accuracy test audit (RATA) for SO<sub>2</sub> or NO<sub>x</sub> conducted under this permit.
  - B. In conjunction with each subsequent measurement of PM emissions made pursuant to Condition 7.2.7(a)(ii) or (iii) (or a RATA for SO<sub>2</sub> or NO<sub>x</sub> preceding such measurement), provided, however, that if measured CO emissions are no more than 100 ppm at 50 percent excess air, CO measurements need not be performed with the next PM measurement (or preceding RATA) but shall be performed with the second measurement of PM emissions following the measurement in which CO emissions were no more than 100 ppm (or a RATA preceding that PM measurement).
- v. Measurements of PM emissions shall also be conducted in accordance with Paragraph 119 of the Schedule (which generally requires testing of PM emissions within 180 days after each date established by the Decree for a certain PM emission rate to be achieved and maintained at the affected boiler).
- vi. A. If standard fuel (i.e., coal, fuel oil, and gas) is less than 97.0 percent by weight of the fuel supply to a boiler during a quarter, the Permittee shall have measurements of PM and CO emissions from the boiler made during the next quarter while firing alternative fuel or process waste in the boiler.

- B. The Permittee shall conduct such measurements while firing the boiler with at least 1.25 times the greatest percentage of alternative fuel material or process waste in the calendar quarter that triggered the testing. This percentage at which testing shall be conducted shall not exceed that allowed by the maximum design capacity of the alternative fuel handling system. If the boiler has been firing a mix of alternative fuel materials or process wastes, the mix of fuel during such measurements shall be approved by the Illinois EPA.
  - C. The Permittee shall repeat such measurements if the percentage of alternative fuel materials and process wastes burned in a boiler during a quarter is more than the percentage of such material in the fuel supply to the boiler when previous emission measurements were conducted.
- vii. Measurements of PM and CO emissions shall be made within 90 days (or such later date set by the Illinois EPA) following a request by the Illinois EPA for such measurements.
- b.
    - i. These measurements shall be performed at the maximum operating loads of the affected boiler and other operating conditions that are representative of normal operation. In addition, the Permittee may perform measurements at other operating conditions to evaluate variation in emissions.
    - ii. Measurements shall be taken at an appropriate location in the ductwork or stack associated with the affected boiler.
    - iii. A. The following test methods and procedures shall be used for these measurements. Refer to 40 CFR 60, Appendix A for USEPA Methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Methods 5 & 202*
Carbon Monoxide (CO)	USEPA Method 10

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Other test methods adopted by USEPA may be used in place of the above methods with the approval of the Illinois EPA

\* Measurements of condensable PM are also required by USEPA Method 202 (40 CFR Part 51, Appendix M) or other established test method approved by the Illinois EPA, except for a test conducted prior to issuance of this permit.

- B. The methods and procedures used for PM testing to determine compliance with PM limitation(s) in Condition 7.2.6-1(b) shall also be in accordance with Paragraph 90 of the Schedule.
- c. Except for minor deviations in test methods, as defined by 35 IAC 283.130, emission testing shall be conducted in accordance with a test plan prepared by the testing service or the Permittee and submitted to the Illinois EPA for review prior to emission testing, and the conditions, if any, imposed by the Illinois EPA as part of its review and approval of the test plan, pursuant to 35 IAC 283.220 and 283.230.
  - i. The Permittee shall submit this test plan at least 60 days prior to the actual date of testing and the test plan shall include the information specified by Condition 8.6.2.
  - ii. Notwithstanding the above, as provided by 35 IAC 283.220(d), the Permittee need not submit a test plan for emission testing that will be conducted in accordance with the procedures used for previous tests accepted by the Illinois EPA or the previous test plan submitted to and approved by the Illinois EPA, provided that the Permittee's notification for testing, as required below, contains the information specified by 35 IAC 283.220(d)(1)(A), (B) and (C).
- d. The Permittee shall notify the Illinois EPA prior to conducting emission tests to enable the Illinois EPA to observe testing. Notification for the expected test date shall be submitted a minimum of 30 days prior to the expected date of testing. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual test date. The Illinois EPA may on a case-by case basis accept shorter advance notice if it would not interfere with the Illinois EPA's ability to observe testing.
- e. The Permittee shall submit the Final Report(s) for

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any required emission testing to the Illinois EPA within 45 days after the tests results are compiled and finalized but no later than 120 days after the date of testing. The Final Report shall include the information specified in Condition 8.6.3 and the following information:

- i. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
- ii. A description of any minor deviations from the test plan, as provided by 35 IAC 283.230(a).
- iii. Detailed description of operating conditions during testing, including:
  - A. Source(s) of fuel and specifications (ash, sulfur and heat content).
  - B. Boiler operating information, i.e., firing rate of the affected boiler(s) (mmBtu/hr), composition of fuel as burned (ash, sulfur and heat content), and fuel blending ratio (%), if a blend of fuels is burned.
  - C. Combustion system information, i.e., settings for distribution of primary and secondary combustion air, target level for O<sub>2</sub> in the flue gas, and levels of CO, CO<sub>2</sub> or O<sub>2</sub> in the flue gas, as determined by any diagnostic measurements.
  - D. Control equipment information, i.e., equipment condition and operating parameters during testing, including any use of the flue gas conditioning system.
  - E. Load during testing (gross megawatt output and steam flow).
- iv. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- v. The SO<sub>2</sub>, NO<sub>x</sub>, O<sub>2</sub> or CO<sub>2</sub>, (hourly averages) and opacity data (6-minute averages) measured during testing.

#### 7.2.8 Monitoring Requirements

- a. Pursuant to NSPS, 40 CFR 60.45, 40 CFR 75.14, and Section 39.5(7)(d)(iii) of the Act, the Permittee shall install, operate, calibrate and maintain



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continuous monitoring equipment for the measurement of opacity from the affected boiler.

- i. The Permittee shall operate this equipment in accordance with the general provisions for opacity monitoring systems in 40 CFR 75.10.
  - ii. This monitoring equipment shall be the primary basis for reporting of exceedances of Conditions 7.2.4(f) and, in accordance with 40 CFR 60.7(c) and 60.45(g), Condition 7.2.4(a)(iii). (See Conditions 7.2.10-2(a) and 7.2.10-3(a).)
- b. Pursuant to the NSPS, 40 CFR 60.45, 40 CFR 75.11, and Section 39.5(7)(d)(iii) of the Act, the Permittee shall install, operate, calibrate and maintain continuous monitoring equipment for the measurement of SO<sub>2</sub> from the affected boiler.
- i. This CEMS shall be used to demonstrate compliance with the SO<sub>2</sub> limits in Condition 7.2.4(a)(ii) and (c) based on the average hourly SO<sub>2</sub> emission rate determined from monitored data from three-hour rolling averaging periods.

Note: This permit is issued based on the Permittee performing continuous emission monitoring for SO<sub>2</sub> rather than fuel sampling and analysis for sulfur content as allowed by 40 CFR 60.45(b)(2). In addition, the permit allows the use of an "Acid Rain Monitoring System", operated to comply with 40 CFR Part 75, in lieu of an "NSPS Monitoring System", as authorized by USEPA guidance from the Stationary Source Compliance Division of the Office of Air Quality Planning and Standards, as such monitoring is equivalent or more stringent.

- c. Pursuant to the NSPS, 40 CFR 60.45, 35 IAC 217.710(a), and Section 39.5(7)(d)(iii) of the Act, the Permittee, shall install, calibrate, maintain and operate a CEMS for the measurement of NO<sub>x</sub> emissions from the affected boiler, in accordance with the requirements of 40 CFR 75 Subpart B.
- d. Pursuant to Section 412 of the Clean Air Act and 40 CFR Part 75, the source is required to operate continuous monitors for the affected boiler for various parameters, including SO<sub>2</sub>, NO<sub>x</sub>, volumetric flow and opacity, along with a computerized data acquisition and handling system for collected data. (See also Condition 6.2.3) To the extent that applicable performance specifications and operating requirements for monitoring under 40 CFR Part 75 are inconsistent with the above requirements for

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monitoring, the procedures of 40 CFR Part 75 shall take precedence. (See also Condition 8.2.)

- e. If the Permittee elects to install a PM CEMS on the Unit to satisfy the requirements of Paragraph 93 of the Decree, such PM CEMS shall satisfy Paragraph 91 of the Schedule and the Permittee shall install, certify and operate the PM CEMS in accordance with Paragraphs 91 and 92 of the Schedule, test such PM CEMS in accordance with Paragraph 94 of the Schedule, operate the PM CEMS in accordance with Paragraph 95 of the Schedule, and submit reports for such monitoring in accordance with Paragraph 96 of the Schedule. [Paragraph 158 of the Consent Decree and Sections 39.5(7) (a) and (d) of the Act]

#### 7.2.9-1 Recordkeeping Requirements for the Affected Boiler

Pursuant to Sections 39.5(7) (a) and (e) of the Act, the Permittee shall maintain the following operational records for the affected boiler:

- a. An operating log or other records that, at a minimum, shall include the following information:
  - i. Information for each startup and shutdown of the boiler, including date, time and duration, as required by 40 CFR 60.7(b). (See also Condition 7.2.9(h).)
  - ii. Information documenting the performance of the combustion evaluation required by Condition 7.2.6-2(a), including the date of the evaluation, the concentrations of CO measured at the start and conclusion of the evaluation, and a description of adjustments and preventative and corrective measures undertaken for the combustion systems of the boiler.
  - iii. Information specifically documenting implementation of actions related to the boilers that are required pursuant to Conditions 7.2.6-2(b), (c) and (d), if applicable.
  - iv. Information for any incident in which the operation of the boiler continued during malfunction or breakdown, including: date, time, and duration; a description of the incident; whether emissions exceeded or may have exceeded any applicable standard; a description of the corrective actions taken to reduce emissions and the duration of the incident; and a description of the preventative actions taken, as addressed by 40 CFR 60.7(b). (See also Condition 7.2.9-4(b) and (c).)

- b. i. Load (in terms of either gross megawatts output or steam flow) on an hourly basis.
- ii. If the Permittee is relying on data for heat input for purposes of compliance with Condition 7.2.4(a)(ii), (b) or (c) that is different from that recorded pursuant to the federal Acid Rain Program, records of heat input (mmBtu, on an hourly basis) or the conversion factors that the Permittee relies upon to convert from boiler load as recorded above to hourly heat input.
- c. Records for each day when an alternative fuel (i.e., a fuel material other than coal, gas or oil) was burned, including the estimated amount of each such material burned.
- d. Total operating hours (hours/quarter).
- e. i. Amount of coal consumed (tons/quarter).
- ii. Amount of each other fuel material consumed (tons, gallons, cubic feet per quarter, as appropriate).
- f. i. Records of agreements with suppliers of alternative fuel(s) for the affected boiler, including origin of material, specifications for heat and ash content, and representative data for elemental composition of such material, including mercury and other heavy metals, chlorine and fluorine.
- ii. Records for each load of such material received at the source, which at a minimum shall include date, supplier name, type of material and amount (tons).

7.2.9-2 Records for Control Devices and Control Equipment

Pursuant to Sections 39.5(7)(a), (e) and (f) of the Act, the Permittee shall maintain the following records for the air pollution control devices and air pollution control equipment on the affected boiler:

- a. Logs
  - i. Operating log(s) or other records for each control device and item of air pollution control equipment that, at a minimum (1) Identify each period of time when the Unit was in operation and associated control devices and control equipment were not being operated or were not operating effectively, and (2)

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Specifically document the implementation of the operating procedures related to control devices and control equipment that are required to be or are otherwise implemented pursuant to Conditions 7.2.6-2(b), (c) and (d), if applicable.

- ii. Maintenance and repair log(s) or other records for each control device and item of control equipment that, at a minimum: (1) List the activities performed, with date and description, and (2) Specifically document the maintenance and repair activities related to control equipment that are required to be or are otherwise performed pursuant to Conditions 7.2.6-2(b), (c) and (d), if applicable. (See also Condition 9.6.1, Control Equipment Maintenance Records.)

b. Emission Control Planning

- i. The following records related to procedures and practices for control of NO<sub>x</sub> emissions from the affected boiler:

- A. A record, which shall be kept up to date, identifying the specific operating procedures and maintenance practices (including procedures and practices specifically related to startups and malfunction/breakdown incidents) currently being implemented by the Permittee for the affected boiler and Unit and associated NO<sub>x</sub> control equipment to satisfy Condition 7.2.6-2(b) (i), (ii) and (iii). These procedures and practices are referred to as the "NO<sub>x</sub> control plan" in this section of this permit.

- B. Accompanying this record, the Permittee shall maintain a demonstration showing that the above NO<sub>x</sub> control plan satisfies the requirements in Condition 7.2.6-2(b) (i) and (ii).

- ii. The following records related to the procedures and practices for control of PM emissions from the affected boiler:

- A. A record, which shall be kept up to date, identifying the specific operating procedures and maintenance practices (including procedures and practices specifically related to startups and malfunction/breakdown incidents) currently being implemented by the

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Permittee for the affected boiler and Unit and associated PM control equipment to satisfy Conditions 7.2.6-2(c) (i) through (c) (iv). These procedures and practices are referred to as the "PM control plan" in this section of this permit.

- B. Accompanying this record, the Permittee shall maintain a demonstration showing that the above PM control plan fulfills the requirements of Condition 7.2.6-2(c) (i), (c) (ii) and (c) (iii), as applicable.
- iii. Effective no later than December 31, 2012, in conjunction with the addition of an SO<sub>2</sub> control technology to the affected boiler as addressed by Condition 7.2.6-2(d) (i), the following records related to procedures and practices for control of SO<sub>2</sub> emissions from the affected boiler:
- A. A record, which shall be kept up to date, identifying the specific operating procedures and maintenance practices (including procedures and practices specifically related to startups and malfunction/breakdown incidents) currently being implemented by the Permittee for the affected boiler and Unit and associated SO<sub>2</sub> control technology to satisfy Condition 7.2.6-2(d) (ii). These procedures and practices are referred to as the "SO<sub>2</sub> control plan" in this section of this permit.
  - B. Accompanying this record, the Permittee shall maintain a demonstration showing that the above SO<sub>2</sub> control plan satisfies the requirements in Condition 7.2.6-2(d) (ii).
- iv. Copies of the records required by Conditions 7.2.9-2(b) (i), (ii) and (iii), when applicable, shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- v. Accompanying the records required by Conditions 7.2.9-2(b) (i), (ii) and (iii), files containing a copy of all correspondence and other written material exchanged with USEPA that addresses the procedures and practices that must be implemented pursuant to Paragraphs 55 and 56, Paragraphs 83, 84, 87 and 88, and Paragraph 66 and 69 of the Decree. This file shall be retained for at least three years after the

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permanent shutdown of both affected Units.

c. Specific Records for NOX Control Devices and Equipment

i. Selective Catalytic Reduction (SCR) System

- A. Manufacture/vendor or Permittee developed operating and maintenance procedures.
- B. Operating log, including system settings and usage of reagent.
- C. Usage of reagent (tons/month).
- D. The maintenance and repair log for the SCR system shall also address activities related to the SCR catalyst, including addition or replacement of catalyst.

d. Specific Records for PM Control Devices and Equipment

i. Flue Gas Conditioning (FGC) System

- A. A copy of the recommended operating and maintenance procedures, if any, provided by the manufacturer or supplier of the system.
- B. The operating log for an FGC system shall include identification of conditioning agent being used and system settings.
- C. Records of the amount of conditioning agent used (lbs/month).

ii. Electrostatic Precipitator (ESP)

When the affected boiler is in operation:

- A. The status of each ESP field shall be recorded at least once per shift.
- B. The following numerical data shall be recorded at least once per day: (1) Primary voltages and currents, (2) Secondary voltages and currents.

iii. Baghouse

Reserved

e. Specific Records for SO2 Control Technology

Reserved

7.2.9-3 Records for Continuous Monitoring Systems

Pursuant to Section 39.5(7)(e) of the Act, the Permittee

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shall maintain the following records for continuous monitoring systems associated with the affected boiler:

a. Records for Continuous Opacity Monitoring System

Pursuant to Section 39.5(7)(e) of the Act, and the NSPS, 40 CFR 60.45, the Permittee shall maintain records for the opacity monitoring system on the affected boiler required by Condition 7.2.8(a) that, at a minimum, shall include the following:

- i. Operating records for the opacity monitoring system, including:
  - A. Opacity measurements.
  - B. Continuous monitoring system performance testing measurements.
  - C. Performance evaluations and other quality assurance/control activities.
  - D. Calibration checks.
  - E. Maintenance and adjustment performed.
  - F. Periods other than performance of quality assurance, calibration, and maintenance, as addressed above, when the monitor was inoperative, with reason.
  - G. Quarterly reports submitted in accordance with NSPS, 40 CFR 60.7(c) and Condition 7.2.10-2(a) and (d).
- ii. Records to address compliance with Conditions 7.2.4(a)(iii) and (f), including each 6-minute period when the opacity was above the applicable limit of Conditions 7.2.4(a)(iii) and (f) (20 percent opacity) with date, time, whether it occurred during startup, malfunction/breakdown, or shutdown, and further explanation of the incident.
- iii. Records for the affected boiler that identify the upper bound of the 95% confidence interval (using a normal distribution and 1 minute averages) for opacity measurements from the boiler, considering an hour of operation, within which compliance with the PM limits in Conditions 7.2.4(a)(ii) and 7.2.4(b) and 7.2.6-1(b) (if applicable) is assured, with supporting explanation and documentation, including results of historic emission tests. At a minimum, these records shall be reviewed and revised as necessary following performance

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of each subsequent PM emission test on the affected boiler. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).

- iv. Records to address compliance with the PM limits of Conditions 7.2.4(a)(ii) and (b) and 7.2.6-1(b) (if applicable), including each hour when the measured opacity of the affected boiler was above the upper bound, as specified above in Condition 7.2.9-3(a)(iii), with date, time, operating condition if startup, malfunction, breakdown, or shutdown, further explanation of the incident, and whether particulate matter emissions may have exceeded the applicable PM, with explanation.
  - v. Notwithstanding the above, recordkeeping pursuant to Conditions 7.2.9-3(a)(iii) and (iv) is not required for the affected boiler for the period when an appropriate PM CEMS is installed and operated on the boiler in accordance with Condition 7.2.8(e), provided the Permittee is maintaining records for such PM CEMS to address compliance with the PM limit in Condition 7.2.4(a)(ii) and (b) or 7.2.6-1(b) (if applicable).
- b. Records for Continuous SO<sub>2</sub> Monitoring Systems

Pursuant to Section 39.5(7)(b) of the Act and the NSPS, 40 CFR 60.45, the Permittee shall maintain records for the SO<sub>2</sub> CEMS on the affected boiler required by Condition 7.2.8(b) that as a minimum shall include the following:

- i. Operating records for the SO<sub>2</sub> CEMS, including:
  - A. SO<sub>2</sub> emission data into units of the applicable standards (lb/mmBtu) calculated in accordance with NSPS, 40 CFR 60.45(e).
  - B. Continuous monitoring system performance testing measurements.
  - C. Performance evaluations and other quality assurance /control activities.
  - D. Calibration checks.
  - E. Maintenance and adjustments performed.
  - F. Periods when the SO<sub>2</sub> CEMS was inoperative, with date, time and reason.



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- G. Data reduction information.
- H. Quarterly reports submitted in accordance with NSPS, 40 CFR 60.7(c) and Condition 7.2.10-2(a) and (b).
- ii. Records to verify compliance with the limitation of Condition 7.2.6-1(a), including the following information for the affected boiler:
  - A. SO<sub>2</sub> emissions on an hourly basis, in pounds, as derived from the data obtained by the SO<sub>2</sub> CEMS.
  - B. The 30-day rolling average SO<sub>2</sub> emission rate, in lb/mmBtu, for each operating day.
  - C. Identification of each hour for which data has been excluded from the determination of the 30-day rolling average emission rate, with explanation.
  - D. The dates of any 30-day rolling averaging period in which the average SO<sub>2</sub> emission rate exceeded the applicable limit, i.e., 1.200 lb/mmBtu, with the calculated SO<sub>2</sub> emission rate.
- iii. If the SO<sub>2</sub> limitation in Condition 7.2.6-1(a)(ii) is not yet effective, records to verify compliance with the limit of Condition 7.2.4(a)(ii) and 7.2.4(c), including the following:
  - A. SO<sub>2</sub> emissions in the terms of the applicable standard (lb/mmBtu) from the affected boiler on an hourly basis, as derived from the data obtained by the SO<sub>2</sub> CEMS.
  - B. The date and time of any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO<sub>2</sub>, as recorded above, exceeded 1.2 lb/mmBtu as allowed by Condition 7.2.4(a)(ii) and (c), with the calculated SO<sub>2</sub> emission rate. These records shall be prepared from the above records at least quarterly as needed to verify compliance with the limitation of Condition 7.2.4(a)(ii) and 7.2.4(c).
- c. Records for Continuous NO<sub>x</sub> Monitoring

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Pursuant to Section 39.5(7)(e) of the Act and 35 IAC 217.712 (a), the Permittee shall maintain records for the NOx CEMS on the affected boiler required by Condition 7.2.8(c) in accordance with the applicable recordkeeping requirements of 40 CFR 75, and the NSPS, 40 CFR 60.45, that as a minimum shall include the following:

i. Operating records for the NOx CEMS, including:

- A. NOx emission data into units of the applicable standards (lb/mmBtu) calculated in accordance with NSPS, 40 CFR 60.45(e).
- B. Continuous monitoring system performance testing measurements.
- C. Performance evaluations and other quality assurance /control activities.
- D. Calibration checks.
- E. Maintenance and adjustments performed.
- F. Periods when the CEMS was inoperative, with date, time and reason.
- G. Data reduction information
- H. Quarterly reports submitted in accordance with Condition 7.2.10-2(c).

ii. Records to verify compliance with the limitation of Condition 7.2.6-1(c), including the following information for the affected boiler:

- A. NOx emissions on an hourly basis, in pounds, as derived from the data obtained by the NOx CEMS.
- B. The 30-day rolling average NOx emission rate, in lb/mmBtu, for each operating day.
- C. Identification of each hour for which data has been excluded from the determination of the 30-day rolling average emission rate, with explanation.
- D. The dates of any 30-day rolling averaging period in which the average NOx emission rate exceeded the applicable limit, i.e., 0.100 lb/mmBtu, with the calculated NOx emission rate.

iii. Records to verify compliance with the limitation of Conditions 7.2.4(a)(ii) and 7.2.4(e) including:

- A. NOx emissions in the terms of the applicable standard (lb/mmBtu) from the affected boiler on an hourly basis, as derived from the data obtained by the NOx CEMS.
- B. The date and time of any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of NOx, as recorded above, exceeded 0.7 lb/mmBtu as allowed by Condition 7.2.4(a)(ii) and 7.2.4(e), with the calculated NOx emission rate. These records shall be prepared from the above records at least quarterly as needed to verify compliance with the limitation of Condition 7.2.4(a)(ii) and 7.2.4(e).

d. Acid Rain Program

Records for the continuous emission monitoring required for the affected boiler by the Acid Rain Program should be kept by the source in accordance with 40 CFR Part 75, including the General Recordkeeping Provisions; the General Recordkeeping Provisions for Specific Situations, if applicable; and Certification, Quality Assurance and Quality Control Record Provisions. [See Condition 6.2.3]

7.2.9-4 Other Recordkeeping Requirements

a. Records for Startups

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (e) of the Act, the Permittee shall maintain the following records related to startup of the affected boiler:

- i. The Permittee's startup procedures for the affected boiler (as also required by Conditions 7.2.3(b)(ii) and 7.2.9-2(b)(i)(A) and (b)(ii)(A)), accompanied by the Permittee's estimate of both total and excess emissions of PM and CO and emissions of NOx during a typical startup, with supporting information and calculations.
- ii. Records for each startup of the affected boiler that, as a minimum, include the following information:
  - A. Date, time, duration and description of the startup.

- B. The elapsed time from initial firing of auxiliary fuel to achievement of stable operation of the boiler with the principal fuel and with boiler systems and control devices operating to enable compliance with applicable standards for opacity and emissions of PM, NO<sub>x</sub>, CO and SO<sub>2</sub>.
- C. If this elapsed time is more than 8 hours or if the Permittee's startup procedures are not followed:
  - I. A detailed explanation why startup of the boiler was not completed sooner or startup procedures were not followed.
  - II. Documentation for the startup procedures that were followed.
  - III. The elapsed time from initial firing of auxiliary fuel until firing of the principal fuel was begun.
  - IV. The flue gas temperature at which the ESP was energized, if coal was fired before the ESP was energized.
  - V. Estimates of the magnitude of emissions of PM and CO during the startup, including whether emissions may have exceeded any applicable hourly standard, as listed in Condition 7.2.4.
  - VI. Emissions of NO<sub>x</sub> and boiler load during the startup, on an hourly basis, as monitored.
- b. Records for Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7) (a) and (e) of the Act, the Permittee shall maintain the following records related to malfunction and breakdown of the affected boiler:

- i. Maintenance and repair log(s) for the affected boiler that, at a minimum, address aspects or components of the boiler for which malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or components, with date,

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description and reason for the activity. In addition, in the maintenance and repair log(s) for control equipment required by Condition 7.2.9(b) (i), the Permittee shall also list the reason for the activities that are performed.

- ii. Records for each incident when operation of the affected boiler continued with excess opacity or emissions, including malfunction or breakdown as addressed by Condition 7.2.3(c), that, at a minimum, include the following information:
  - A. Date, time, duration and description of the incident.
  - B. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
  - C. Confirmation of fulfillment of applicable operating and maintenance requirements pursuant to Conditions 7.2.6-2(b), (c) and(d), if applicable.
  - D. Confirmation of fulfillment of the reporting requirements of Condition 7.2.10-3(a), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.2.10-3(a) (ii).
  - E. If opacity exceeded the applicable standard for two or more hours, PM emissions may have exceeded an applicable hourly standard (Conditions 7.2.4(a) (i) and (b) or Condition 7.2.6-1(b), if applicable), or CO emissions may have exceeded the applicable hourly standard (Condition 7.2.4(d)):
    - I. A detailed explanation why continued operation of the affected boiler was necessary.
    - II. The preventative measures that have been or will be taken to prevent similar incidents or reduce their frequency and severity, including any repairs to the affected boiler and associated equipment and any changes to operating and maintenance procedures.
    - III. Estimates of magnitude of emissions of PM and CO during the incident, as emissions exceeded or may have

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exceeded any applicable hourly standard.

- IV. Emissions of NO<sub>x</sub> of SO<sub>2</sub> during the incident, on an hourly basis, if monitored emissions exceeded the applicable hourly standard.

c. Summary Records Related to the Emission Control Plans

Pursuant to Sections 39.5(7)(a) and (e) of the Act, the Permittee shall maintain the following records for each incident when applicable action(s) required pursuant to the NO<sub>x</sub> Control Plan, PM Control Plan or the SO<sub>2</sub> Control Plan (when applicable) were not taken for the affected boiler or Unit:

- i. The date of the incident.
- ii. A description of the incident, including the required action(s) that were not taken; other actions or mitigation measures that were taken, if any; and the likely consequences of the incidents as related to emissions.
- iii. The time at and means by which the incident was identified.
- iv. The length of time after the incident was identified before required action(s) were taken or were no longer required and an explanation why this time was not shorter, including a discussion of the timing of any mitigation measures that were taken for the incident.
- v. The estimated total duration of the incident, i.e., the total length of time that the affected boiler ran without the required action(s) being taken.
- vi. A discussion of the probable cause of the incident and any preventative measures taken.
- vii. A discussion whether any applicable emission standards, as listed in Condition 7.2.4 or 7.2.6-1 may have been violated, either during or as a result of the incident, with supporting explanation.

7.2.10-1 Reporting Requirements - Reporting of Deviations

- a. For the affected boiler, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. At a minimum, these notifications shall include a description of such deviations, including whether they occurred during

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startup or malfunction/breakdown, and a discussion of the possible cause of such deviations, any corrective actions and any preventative measures taken. [Section 39.5(7)(f)(ii) of the Act]

- i. Notification and reporting as specified in Condition 7.2.10-3(a) for certain deviations from the PM limits in Conditions 7.2.4(a)(ii) and (b) or 7.2.6-2(b).
- ii. Notification and reporting as specified in Condition 7.2.10-3(a) for certain deviations from the opacity limit in Conditions 7.2.4(a)(iii) and (f).
- iii. Notification with the quarterly reports required by Conditions 7.2.10-2(b), (c) and (d) for deviations from Conditions 7.2.4(a), (b), (c), (e), and (f) and 7.2.6-2(a), (c) and (b), if applicable, and from the requirements of Condition 7.2.8 for emissions monitoring.
- iv. Notification with the annual compliance reports required by Condition 7.2.10-4(a) for deviations from Condition 7.2.4(g).
- v. Notification with the quarterly reports required by Condition 7.2.10-2(a) for deviations not addressed above by Condition 7.2.10-1(a)(i), (ii), (iii) or (iv), including deviations from other applicable requirements, e.g., the applicable CO standard, work practice requirements, required operating procedures, required maintenance practices and recordkeeping requirements.

b. Periodic Reporting of Deviations

The quarterly reports required by Condition 7.2.10-2(a) shall include the following information for the affected boiler related to deviations from permit requirements during the quarter. [Sections 39.5(7)(a) and (f)(i) of the Act]

- i. A listing of all instances of deviations that have been reported in writing to the Illinois EPA as provided by Condition 7.2.10-1(a)(i) and (ii), including identification of each such written notification or report. For this purpose, the Permittee need not resubmit copies of these previous notifications or reports but may elect to supplement such material.
- ii. Detailed information, as required by Condition 7.2.10-1(a)(iii), (iv) or (v), for all other deviations not addressed in the above listing.

7.2.10-2 Reporting Requirements - Regular Reports

a. Quarterly Reports

In place of the semi-annual monitoring reports otherwise required by Condition 8.6.1, the Permittee shall submit quarterly reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act.

- i. These Reports shall include the following information for operation of the affected boiler during the quarter:
  - A. The total operating hours, as also reported in accordance with 40 CFR Part 75.
  - B. The greatest load achieved by the boiler (steam flow or gross megawatts).
  - C. A discussion of significant changes in the fuel supply to the boiler, if any, including changes in the source of coal, the introduction of new fuel materials other than coal, gas and oil, and changes in the source of such other fuel materials or the maximum rate at which they will be fired.
  - D. A list of the startups of the affected boiler, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.2.9-4(a)(ii)(C) for each startup for which such records were required.
  - E. A copy of the records required by Condition 7.2.9-3(a)(iv) identifying the date and time that the upper bound, as specified above in Condition 7.2.9-3(a)(iii), was exceeded, with operating condition if startup, malfunction, breakdown, or shutdown; with further explanation of the incident and whether particulate matter emissions may have exceeded the PM limit.
- ii. These report shall include the information for SO<sub>2</sub>, NO<sub>x</sub>, and PM emissions and opacity from the affected boiler during the quarter and the operation of required continuous monitoring systems specified by Conditions 7.2.10-2(b), (c) and (d).



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- iii. These reports shall include the information for the affected boiler related to deviations during the quarter specified by Condition 7.2.10-1(b).
- iv. These reports shall be submitted after the end of every calendar quarter as follows:

Monitoring Period	Submittal Deadline
January - March	April 30
April - June	July 30
July - September	October 30
October - December	January 30

b. Reporting Related to SO<sub>2</sub> Emissions

Pursuant to Sections 39.5(7)(a) and (f) of the Act and the NSPS 40 CFR 60.45(g), the Permittee shall report the following information for the affected boiler to the Illinois EPA in accordance with 40 CFR 60.7(c) with its quarterly reports pursuant to Condition 7.2.10-2(a):

- i. Summary information on the performance of the SO<sub>2</sub> CEMS, including the information for a "Summary Report" specified by 40 CFR 60.7(d). When the SO<sub>2</sub> CEMS was not inoperative, repaired or adjusted except for zero and span checks, this shall be stated in the report.
- ii. If specifically requested by the Illinois EPA or the CEMS downtime was more than 5 percent of the total operating time for the affected boiler: the date and time identifying each period during which the CEMS was inoperative except for zero and span checks, and the nature of CEMS repairs or adjustments and a summary of quality assurance data consistent with 40 CFR Part 75, i.e., the dates and results of the Linearity Test(s) and any Relative Accuracy Test Audit(s) during the quarter, a listing of any days when a required daily calibration was not performed, and the date and duration of any periods when the CEMS was out-of-control as addressed by 40 CFR 75.24.
- iii. The following information related to compliance with the SO<sub>2</sub> limitation pursuant to Condition 7.2.6-1(a):
  - A. The following information for each operating day for which the SO<sub>2</sub> emission rate was in excess of this limitation. When there were no such exceedances, this shall be stated in the report.

- I. The period of operation associated the exceedance, including the start of the 30-day averaging period.
  - II. A copy of the records for the excess emissions, as maintained pursuant to Condition 7.2.9-3(b)(ii), including the measured emission rate.
  - III. A detailed explanation of the cause of the excess emissions.
  - IV. A detailed explanation of corrective actions and actions taken to lessen the emissions.
- B. A listing of each operating hour for which hourly emission data was not included in the calculation of the 30-day rolling average emission rate, with explanation.
- iv. If the SO<sub>2</sub> limitation pursuant to Condition 7.2.6-2(a) is not yet effective, the following information for each period when SO<sub>2</sub> emissions in excess of the limitations in Conditions 7.2.4(a)(ii) and 7.2.4(c)\*. When there were no such exceedances, this shall be stated in the report.
- A. The starting date and time of the SO<sub>2</sub> excess emissions.
  - B. The duration of the excess emissions.
  - C. A copy of the records for the excess emissions, as maintained pursuant to Condition 7.2.9-3(b)(iii), including the measured emission rate.
  - D. A detailed explanation of the cause of the excess emissions.
  - E. A detailed explanation of corrective actions and actions taken to lessen the emissions.

\* For this purpose the purpose of reporting excess SO<sub>2</sub> emissions, the averaging period is an arithmetic average of three contiguous one-hour periods, as used to determine compliance with the limitations of Condition 7.2.4(a)(ii) and 7.2.4(c). The records for excess emissions shall consist of three-hour rolling emission

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averages during which the limitation was exceeded.

c. Reporting Related to NO<sub>x</sub> Emissions

Pursuant to Sections 39.5(7)(a) and (f) of the Act and the NSPS 40 CFR 60.45(g), the Permittee shall report the following information for the affected boiler to the Illinois EPA in accordance with 40 CFR 60.7(c) with its quarterly reports pursuant to Condition 7.2.10-2(a):

- i. Summary information on the performance of the NO<sub>x</sub> CEMS, including the information for a "Summary Report" specified by 40 CFR 60.7(d). When the NO<sub>x</sub> CEMS was not inoperative, repaired or adjusted except for zero and span checks, this shall be stated in the report.
- ii. If specifically requested by the Illinois EPA or the CEMS downtime was more than 5 percent of the total operating time for the affected boiler: the date and time identifying each period during which the CEMS was inoperative except for zero and span checks, and the nature of CEMS repairs or adjustments and a summary of quality assurance data consistent with 40 CFR Part 75, i.e., the dates and results of the Linearity Test(s) and any Relative Accuracy Test Audit(s) during the quarter, a listing of any days when a required daily calibration was not performed, and the date and duration of any periods when the CEMS was out-of-control as addressed by 40 CFR 75.24.
- iii. The following information related to compliance with the NO<sub>x</sub> limitation pursuant to Condition 7.2.6-1(c):
  - A. The following information for each operating day for which the NO<sub>x</sub> emission rate was in excess of this limitation. When there were no such exceedances, this shall be stated in the report.
    - I. The period of operation associated the exceedance, including the start of the 30-day averaging period.
    - II. A copy of the records for the excess emissions, as maintained pursuant to Condition 7.2.9-3(c)(ii), including the measured emission rate.

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- III. A detailed explanation of the cause of the excess emissions.
- IV. A detailed explanation of corrective actions and actions taken to lessen the emissions.
- B. A listing of each operating hour for which hourly emission data was not included in the calculation of the 30-day rolling average emission rate, with explanation.
- iv. The following information for each period when NOx emissions in excess of the limit in Condition 7.2.4(a)(ii) and (e)\*. When there were no such exceedances, this shall be stated in the report.
  - A. The starting date and time of the NOx excess emissions.
  - B. The duration of the excess emissions.
  - C. A copy of the records for the excess emissions, as maintained pursuant to Condition 7.2.9-3(c)(iii), including the measured emission rate.
  - D. A detailed explanation of the cause of the excess emissions.
  - E. A detailed explanation of the corrective actions and actions taken to lessen the emissions.

\* For NOx emissions, the averaging period is a three-hour rolling average, as used to determine compliance with the NOx limit of Conditions 7.2.4(a)(ii) and (e). The records for excess emissions shall consist of three-hour rolling emission averages during which the limit was exceeded.

d. Reporting Related to Opacity and PM Emissions

Pursuant to Sections 39.5(7)(b) and (f) of the Act, and the NSPS, 40 CFR 60.45(g), the Permittee shall report the following information for the affected boiler to the Illinois EPA with its quarterly report pursuant to Condition 7.2.10-2(a):

- i. Summary information on the performance of the opacity monitoring system and excess emissions, as required for a "Summary Report" in accordance with 40 CFR 60.7(d). When no excess opacity occurred or the continuous opacity

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monitoring system was not inoperative, repaired or adjusted except for zero and span checks, this shall be stated in the report.

- ii. The operating status of the opacity monitoring system, including the dates and times of any periods during which it was inoperative, if requested by the Illinois EPA or the opacity monitoring system downtime was more than 5 percent of the total operating time for the affected boiler during the quarter.
- iii. The following information for each period when opacity was in excess of the applicable standards specified in Conditions 7.2.4(a) (iii) and (f).
  - A. The starting dates and time of the exceedance.
  - B. The duration of the excess opacity.
  - C. The magnitude of excess opacity, based on six minute average opacity, including:
    - I. The percent opacity for each six-minute period.
    - II. The start and stop time of each six-minute period in excess of 20 percent.
  - D. A detailed explanation of the cause of excess opacity, if known, including whether such excess opacity occurred during startup, malfunction or breakdown of the boiler.
  - E. A detailed explanation of the corrective actions and actions taken to lessen the opacity.
  - F. Identification of the previous report for the incident submitted to the Illinois EPA pursuant to Condition 7.2.10-3(a) (ii). For this purpose, the Permittee need not resubmit copies of such report but may elect to supplement such material.
  - G. A summary of the records required by Condition 7.2.9(h) (ii) for incidents when operation of the affected boiler continued during malfunction or breakdown with excess emissions that are not

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addressed by individual reports submitted pursuant to Condition 7.2.10-3(a) (ii).

Note: While the NSPS provides that one six-minute period per hour during which the average opacity of emissions exceeds 20 percent opacity, pursuant to the Federal Acid Rain program, but not more than 27 percent opacity need not be reported (40 CFR 60.45(g)(1)), such a provisions does not accompany 35 IAC 212.122.

iv. The following information for each period when PM emissions were in excess of the limit in Condition 7.2.4(a) (ii) or (b) or 7.2.6-1(b), if applicable. If there were no such exceedances during the reporting period, the quarterly report shall so state.

A. A summary of information for each period of exceedance that includes:

I. The starting date and time of the exceedance.

II. The duration of the exceedance.

III. The magnitude of the exceedance.

IV. The percent opacity measured for each six-minute period during the exceedance.

V. The means by which the exceedance was indicated or identified, in addition to the continuous monitoring.

VI. A detailed explanation of the cause of the exceedance, including whether the exceedance occurred during startup, malfunction or breakdown.

VII. A detailed explanation of the corrective actions and actions taken to lessen the emissions.

B. Identification of the previous reports for the incidents submitted to the Illinois EPA pursuant to Condition 7.2.10-3(a) (ii). For this purpose, the Permittee need not resubmit copies of such report but may elect to supplement such material.

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- v. The following summary information related to opacity and PM exceedances:
- A. Further information for each type of recurring opacity exceedance that occurred during the quarter, including: a discussion of any circumstances or events during the quarter that generally affected the number or magnitude of such exceedances; a discussion of any additional understanding of the causes for such exceedances gained during the quarter, including the role of component failure or degradation, maintenance practices, and operating procedures; a general discussion of the effectiveness of the corrective actions that were taken in response to such exceedances; and a general discussion of further actions that are being considered to address such exceedances.
  - B. Further information for any new type(s) of opacity exceedances that occurred during the quarter including: a general narrative description for the type(s) of exceedance; a general explanation of the cause(s) for such exceedances, including the role of component failure or degradation, maintenance practices, and operating procedures; a detailed explanation of the corrective actions that have been taken for such exceedances, including the reasons that the selected actions were taken, the effectiveness of those actions, and the likelihood of future occurrence of similar exceedances; and a general discussion of possible further actions that could be taken to address such exceedances. For this purpose, new type(s) of exceedance are ones that have not been addressed in the preceding four quarterly opacity reports.
  - C. Other information relevant to generally explaining the number and magnitude of opacity and PM exceedances during the quarter, e.g., a further discussion of specific events or circumstances that occurred that affected the number of magnitude or exceedances during the quarter.
  - D. Information describing actions taken during the quarter that should generally

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act to significantly reduce the number or magnitude of future opacity or PM exceedances, e.g., a summary of relevant upgrades or replacements of components that were completed, with a description of such actions, an explanation of their relationship to exceedances, and a discussion of their anticipated effect on future exceedances.

- v. A glossary of common technical terms used by the Permittee in its reports pursuant to this Condition 7.2.10-2(d), including the definitions for the categories used by the Permittee to classify exceedance events.

d. Acid Rain Program Reporting

Pursuant to Section 412 of the Clean Air Act and 40 CFR Parts 72 and 75, the source is subject to the reporting requirements of 40 CFR Part 75, which includes General Provisions; Notifications; Initial Certification or Recertification Application; Quarterly Reports; and Opacity Reports. [See Condition 6.2.3] Pursuant to Section 39.5(17) (m) of the Act, the designated representative of the source must concurrently submit to the Illinois EPA in the same electronic format specified by the USEPA, the data and information submitted to USEPA on a quarterly basis pursuant to 40 CFR 75.64.

7.2.10-4 Reporting of NO<sub>x</sub> Emissions for the Ozone Control Period

a. Annual Compliance Reports

The Permittee shall submit a report to the Illinois EPA by November 30 of each year that demonstrates whether the affected boiler has complied with Condition 7.2.4(g), pursuant to 35 IAC 217.712(d) and (e).

- i. If the Permittee is demonstrating compliance on a unit-specific basis with Condition 7.2.4(g) (i) (B), this report shall contain the information specified by 35 IAC 217.712(d) including the heat input and NO<sub>x</sub> emissions of the unit for the ozone control period.

- ii. If the Permittee is demonstrating compliance by means of "NO<sub>x</sub> averaging" as authorized by Condition 7.2.4(g) (ii) (B), this report shall contain the information specified by 35 IAC 217.712(e) and other related information as follows:

- A. In all cases, for the affected boiler, the Permittee shall report the following:



- I. Identification of the other EGU that are participating in the demonstration, including identification of the source that is the lead party for the demonstration and that is also taking responsibility for submitting the information required by Condition 7.2.10-2(e) (ii) (B) below.
  - II. A statement confirming that the unit is eligible to participate in an averaging demonstration, i.e., the unit is included in only one demonstration [35 IAC 217.708(d)] and the Permittee is complying with applicable recordkeeping and reporting requirements for the unit, pursuant to 35 IAC 217.708(c) and (g).
  - III. The average NOx emission rate for the unit, with calculations and supporting information, as required by 35 IAC 217.712(e) (2) and (3), including the heat input and NOx emissions of the unit for the ozone control period.
  - IV. A statement whether the unit would show compliance on its own in the absence of averaging.
- B. If the Permittee is the lead party for a NOx averaging demonstration, the Permittee shall report the following:
- I. Copies of the information submitted by other parties for the EGU participating in the demonstration, which include all material required by Condition 7.2.10-2(e) (ii) (A) above (unless or except as this information is provided with the submittal by a person who is a responsible official for the EGU participating in the demonstration).
  - II. The averaged NOx emission rate for all EGU participating in the demonstration, with complete supporting calculations, as required by 35 IAC 217.712(e) (1).

III. A statement whether the  
demonstration shows compliance.

b. Submittal of Supplemental Information Related to NOx  
Emissions during the Ozone Control Period

The Permittee shall submit copies of any records and data required by 35 IAC 217.712 to the Illinois EPA within 30 days after receipt of a written request by the Illinois EPA. [35 IAC 217.712(g)]

7.2.10-3 Reporting Requirements - Notifications

a. Reporting of Continued Operation During Malfunctions  
And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA, Compliance Section and Regional Office, concerning incidents when operation of the affected boiler continued with excess emissions, including continued operation during malfunction or breakdown as addressed by Condition 7.2.3(c). These requirements do not apply to such excess emissions, if any, that occur during startup or shutdown of the affected boiler.

- i. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the applicable PM emissions standard (Conditions 7.2.4(a)(ii) and (b) or Condition 7.2.6-2(b)) could be exceeded or in which the opacity from the affected boiler exceeds 20 percent for five or more 6-minute averaging periods unless the Permittee has begun the shutdown of the affected boiler by such time. (Otherwise, as related to opacity, if opacity during an incident only exceeds 20 percent for no more than five 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.2.10-2(a)(iii) and (d).)
- ii. Upon conclusion of each incident in which the applicable PM standard may have been exceeded or in which exceedances of the opacity standard are two hours or more in duration, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), an explanation why continued operation of the affected boiler was necessary,

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the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected boiler was taken out of service.

#### 7.2.11 Operational Flexibility/ Anticipated Operating Scenarios

The Permittee is authorized to make the following operational changes with respect to the affected boiler without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7)(a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements; to properly obtain a construction permit in a timely manner for any activity constituting construction or modification as defined in 35 IAC 201.102 or 40 CFR 52.21(a)(2) and to comply with other legal requirements that apply to such a change:

- a. Operation of additional air pollution control equipment, which is addressed by a separate construction permit.
- b. Firing of coal or a mix of coal from different suppliers.
- c. Firing of the following materials in conjunction with firing of standard fuels, provided that such materials can be accommodated with the existing fuel handling system and the burners in the affected boiler, and that such materials do not make up more than 10 percent by weight of the fuel supply to the boiler on a quarterly basis:
  - i. Other process wastes generated at the source in addition to used oil and boiler cleaning residue.
  - ii. Alternative fuels that do not constitute waste and were not generated from municipal waste or hazardous waste, such as petroleum coke, tire derived fuel (as defined at Section 54.10b of the Act), clean lumber and wood waste (as defined at 40 CFR 60.2265), shredded polyethylene agricultural containers, and seed corn, provided that such materials are shipped to the source in homogeneous form prepared for use as fuel (e.g., a shipment of tire derived fuel).

Note: Other requirements unrelated to air pollution control may apply to firing of alternative fuels, such as Standards for Management of Used Oil, 35 IAC Part 739.

7.2.12 Compliance Procedures

- a. Compliance with the opacity limit of Conditions 7.2.4(a)(iii) and (f) (20 percent opacity) is addressed by the average opacity calculated from six-minute periods of opacity measurements from the continuous opacity monitoring system operated in accordance with the requirements of Condition 7.2.8(a) and the recordkeeping requirements of Conditions 7.2.9-1, 7.2.9-2, 7.2.9-3 and 7.2.9-4.
- b.
  - i. Compliance with PM limits of Conditions 7.2.4(a)(ii) and (b) and Condition 7.2.6-1(b) (if applicable) is addressed by the work practices required by Condition 7.2.6-2(c), continuous opacity monitoring in accordance with Condition 7.2.8(a), PM testing in accordance with Condition 7.2.7, and the recordkeeping required by Conditions 7.2.9-1, 7.2.9-2, 7.2.9-3 and 7.2.9-4.
  - ii. If the Permittee elects to install a PM CEMS on an affected boiler, as provided for by Condition 7.2.8(e), compliance with the applicable PM limits would also be addressed by monitoring in accordance with Condition 7.2.8(e).
- c. Compliance with the SO<sub>2</sub> limits of Conditions 7.2.4(a)(ii) and (c) and 7.2.6-1(a) is addressed by continuous emission monitoring in accordance with Condition 7.2.8(b) and the recordkeeping required by Conditions 7.2.9-1, 7.2.9-2, 7.2.9-3, and 7.2.9-4.
- d. Compliance with the CO limit of Condition 7.2.4(d) is addressed by work practices, emission testing and recordkeeping as required by Conditions 7.2.6-2(a), Condition 7.2.7, and Conditions 7.2.9-1, 7.2.9-2, and 7.2.9-4, respectively.
- e. Compliance with NO<sub>x</sub> emission limit of Condition 7.2.4(f) is addressed by the continuous emissions monitoring and recordkeeping required by Conditions 7.2.8(c) and Conditions 7.2.9-1, 7.2.9-2, 7.2.9-3 and 7.2.9-4, respectively.
- f. Compliance with the operating and maintenance practices required by Condition 7.2.6-2 is addressed by the recordkeeping required by Condition 7.2.9-1, 7.2.9-2, 7.2.9-3 and 7.2.9-4.

Note: This condition is included in this permit pursuant to Section 39.5(7) (p) (v) of the Act.

### 7.3 Auxiliary Boiler

#### 7.3.1 Description

The Permittee operates a natural gas fired and distillate oil fired boiler for generating steam for startup of Boiler 9 and for space heating purposes. The boiler has a nominal rated heat input capacity of 99 mmBtu/hr.

#### 7.3.2 List of Emission Units and Pollution Control Equipment

Unit ID	Description	Control Equipment
Auxiliary boiler	Babcock & Wilcox boiler Gas and distillate oil fired (1994) Nominal rating 85,000 lb steam/hour	None

#### 7.3.3 Applicability Provisions

- a.
  - i. The "affected boiler" for the purpose of these unit-specific conditions is the boiler described in Conditions 7.3.1 and 7.3.2.
  - ii. Because the construction of the boiler commenced after June 9, 1989 and the affected boiler has a maximum design heat input capacity that is 100 mmBtu/hr or less, the affected boiler is also an affected facility under the federal NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc. As an affected facility, the Permittee must comply with applicable requirements of the NSPS, 40 CFR 60 Subpart Db, and related requirements of 40 CFR 60, Subpart A, General Provisions, for the affected boiler.
- b. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate the affected boiler in violation of the applicable emission limitations of Condition 7.3.4(b) (i) (35 IAC 212.206 and 207, and 216.121) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual startups and frequency of startups."

- i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups.

- ii. The Permittee shall conduct startup of the affected boiler in accordance with written procedures prepared by the Permittee and maintained in the control room for the boiler, that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Conditions 7.3.9(a) and (d) and 7.3.10-2(a) (i) (D) .
- iv. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

c. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of the affected boiler in violation of the applicable requirement of Condition 7.3.4(b) (35 IAC 212.123, 212.206 and 207, and 216.121) in the event of a malfunction or breakdown of the affected boiler. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or to prevent injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practicable reduce boiler load, repair the affected boiler, remove the affected boiler from service or undertake other action

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so that excess emissions cease.

- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.3.9(a) and (e) and 7.3.10-2(a)(iv) and 7.3.10-3(a). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the boiler out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, as required in Condition 7.3.10-3(a), the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

#### 7.3.4 Applicable Emission Standards

##### a. Federal NSPS Standards

- i. The affected boiler is subject to the NSPS for Small Industrial-Commercial Institutional Steam Generating Units, 40 CFR 60 Subpart Dc.
- ii. Pursuant to the NSPS, 40 CFR 60.42c(d), the Permittee shall not cause or allow emissions of SO<sub>2</sub> from the affected boiler in excess of 0.5 lb/mmBtu or the sulfur content of the fuel oil burned in the affected boiler shall be less than 0.5 percent by weight.

Note: The SO<sub>2</sub> emissions from the affected boiler are subject to a more stringent standard pursuant to Condition 35 IAC 214.122.

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- iii. Pursuant to the NSPS, 40 CFR 60.43c(c), opacity from the affected boiler shall not exceed 20 percent, as measured on a six minute average, except for one six minute period per hour of not more than 27 percent. As provided by 40 CFR 60.43c(d), this limit does not apply during periods of startup, shutdown, or malfunction, as defined at 40 CFR 60.2. However, exceedances during such periods shall be reported as deviations.

b. State Emission Standards

- i. Pursuant to 35 IAC, Chapter B, Subchapter C, emissions from affected boiler shall not exceed the following standards, which apply on an hourly basis:

Pollutant	Standard	Limit
SO <sub>2</sub>	35 IAC 214.122(b) (2) and 214.162*	0.3 lb/mmBtu
PM	35 IAC 212.206 and 212.207	0.1 lb/mmBtu*
CO	35 IAC 216.121	200 ppm, @ 50% excess air

\* Limit is applicable to emissions attributable to burning of oil.

- ii. Pursuant to 35 IAC 212.123, the opacity of the exhaust from the affected boiler shall not exceed 30 percent. (See also Condition 5.2.2(b).)

Note: This state opacity standard is superseded by the applicable NSPS standard, which limits opacity to 20 percent except for one six minute period per hour of not more than 27 percent.

#### 7.3.5 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the Permittee not being required to operate a continuous opacity monitor for the affected boiler pursuant to the NSPS, 40 CFR 60.47c(a).
- b. This permit is issued based on the Permittee using fuel supplier certification, as described under 40 CFR 60.48c(f) (1), to demonstrate compliance with the standard in Condition 7.3.4(a) (ii) for sulfur content of fuel, rather than continuous emissions monitoring for SO<sub>2</sub>, as allowed by the NSPS, 40 CFR 60.46c(h).

#### 7.3.6 Operational and Production Limits and Work Practices

- a. i. As part of its operation and maintenance of the affected boiler, the Permittee shall perform formal "combustion evaluation" on the boiler in each calendar quarter in which the boiler operates for at least 100 hours\*, pursuant to



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Section 39.5(7)(d) of the Act. These evaluations shall consist of diagnostic measurements of the concentration of CO in the flue gas of the affected boiler, with adjustments and preventative and corrective measures for the boiler's combustion systems to maintain efficient combustion.

\* If the affected boiler does not operate for 100 hours in a calendar quarter, the interval between combustion evaluations shall be no greater than 100 hours of boiler operation.

ii. Natural gas or distillate oil, as defined in 35 IAC 211.1770, shall be the only fuel fired in the affected boiler.

iii. At all times, the Permittee shall maintain and operate the affected boiler, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, as required pursuant to the NSPS, 40 CFR 60.11(d).

b. i. Total annual consumption of distillate fuel oil in the affected boiler shall not exceed 1,750,000 gallons. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). [T1]

ii. A. When the affected boiler is operational, Boilers 1 through 8 as addressed by Section 7.1 of this permit, shall not be used to facilitate the startup of Boiler 9. [T1]

B. The affected boiler shall only be used as an auxiliary boiler to supply steam to facilitate the startup of Boiler 9 and for space heating purpose when Boiler 9 is not operating. [T1]

iii. The emissions of CO, NO<sub>x</sub>, and SO<sub>2</sub> from the affected boiler shall not exceed 3.7, 19.8 and 29.7 lb/hr, respectively. [T1]

Note: The above requirements were originally established in Construction Permit 94020078. These requirements were intended to ensure that the construction and operation of the affected boiler do not constitute a major modification pursuant to PSD.

7.3.7-1 Opacity and Emission Testing Requirements

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- a. The Permittee shall have the opacity of the exhaust from the affected boiler during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - i. A. On an annual basis, unless the boiler operates for less than 25 hours in the calendar year. For this purpose, opacity testing shall first be conducted within the first 125 hours of operation of the boiler after the effective date of this Condition 7.5.7-1(a).
  - B. Upon written request by the Illinois EPA, such testing shall be conducted within 45 calendar days of the request, or on the date that the affected boiler next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
- ii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 5.0 percent.
- iii. A. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of observations, in order to allow the Illinois EPA to witness the observations. This notification shall include the name and employer of the certified observer(s) and identify any concerns for successful completion of observations, i.e., lack of suitable point for proper observation or inability to conduct observations under specified conditions;
- B. The Permittee shall promptly notify the Illinois EPA of any changes in the date and time of observation; and
- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of observations, if Illinois EPA personnel are present at the conclusion of observations.
- v. The Permittee shall submit a written report for these observations within 15 days of the date of observation. This report shall include:
  - A. Date, place, and time of observations;

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- B. Name and employer of certified observer;
  - C. Copy of current certification;
  - D. Description of observation conditions;
  - E. Description of boiler operating conditions;
  - F. Raw data;
  - G. Opacity determination; and
  - H. Conclusion.
- b.
- i. The Permittee shall have the PM, CO and NO<sub>x</sub> emissions of the affected boiler during representative operating conditions measured within 90 days of a written request from the Illinois EPA, as specified by such request, pursuant to Sections 39.5(7)(d) of the Act.
  - ii.
    - A. Testing shall be conducted using appropriate USEPA Reference Test Methods, including Methods 5, 10, and 7 or 19 for PM, CO and NO<sub>x</sub> emissions, respectively.
    - B. Compliance may be determined from the average of three valid runs subject to the limitations and conditions contained in 35 IAC Part 283.
  - iii. The Permittee shall submit a test plan to the Illinois EPA at least 60 days prior to testing, which plan shall include the information specified by Condition 8.6.2.
  - iv. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interferes with the Illinois EPA's ability to observe the testing.
  - v. The Permittee shall submit the Final Report(s) for any required emission testing to the Illinois EPA within 45 days after the tests results are compiled and finalized but no later than 120 days after the date of testing.

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The Final Report shall include the information specified in Condition 8.6.3 and the following information:

- A. A summary of results.
- B. Detailed description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
- C. Detailed description of the operating conditions of the affected boiler during testing, including fuel consumption (scf/hr or gal/hr), firing rate (mmBtu/hr), and combustion system information, i.e., settings for distribution of combustion air, target level for O<sub>2</sub> in the flue gas, and levels of O<sub>2</sub> in the flue gas, as determined by diagnostic measurements.
- D. Detailed data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration
- E. Representative opacity data (6-minute average) measured during testing.

7.3.7-2 Sampling and Analysis of Fuel Oil

- a. i. The Permittee shall have the sulfur content of the oil supply to the affected boiler, in lb/mmBtu, determined from an analysis of representative sample of the oil supply, as follows, pursuant to Section 39.5(7)(d) of the Act:
  - A. From a sample taken no later than 90 days after first operating the affected boiler pursuant to this permit, provided, however, that if such sample is taken following operation of the boiler on oil, the sample shall be taken prior to adding more oil to the storage tank.
  - B. From a sample taken no later than 30 days after acceptance of a shipment of fuel that by itself would not meet Condition 7.3.4(c) based upon supplier data, provided however, that if the boiler is operated following acceptance of such a shipment, the sample shall be taken prior to adding a subsequent shipment of oil to

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the relevant storage tank.

- C. From a sample taken no later than 30 days after a request for such a sample is made by the Illinois EPA, provided, however, that such sample shall be taken prior to adding more oil to the relevant storage tank.
- ii. Sampling and analysis shall be conducted using methods that would be acceptable under the federal NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.46c(d) or the federal Acid Rain Program, 40 CFR 75, Appendix D, Optional SO<sub>2</sub> Emissions Data Protocol for Gas Fired and Oil Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

#### 7.3.8 Emission Monitoring Requirements

None

#### 7.3.9 Recordkeeping Requirements

The Permittee shall maintain the following records for the affected boiler, pursuant to Sections 39.5(7)(a) and (e) of the Act and 40 CFR Part 60:

- a. The following file(s), log(s) or other records:
  - i. A file containing a record of the maximum design heat input capacity of the affected boiler, mmBtu/hr, with supporting documentation.
  - ii. An operating log or other records for the affected boiler that, at a minimum, shall include the following information:
    - A. Information for each startup and shutdown of the boiler, including date, time and duration, as required by 40 CFR 60.7(b). (See also Condition 7.3.9(d).)
    - B. Information for any incident in which the operation of the affected boiler continued during malfunction or breakdown, including: date, time, and duration; a description of the incident; whether emissions exceeded or may have exceeded any applicable standard; a description of the corrective actions taken to reduce emissions and the duration of the incident; and a description of the preventative actions taken, as addressed by 40 CFR 60.7(b). (See also Condition 7.3.9(e).)

- C. Information documenting the performance of the combustion evaluation required by Condition 7.3.6(a) (i), including the date of the evaluation, the concentrations of CO measured at the start and conclusion of the evaluation, and a description of adjustments and preventative and corrective measures undertaken for the combustion systems of the boiler.
  - D. Information documenting that operation of the affected boiler complied with the operational restrictions in Condition 7.3.6(b) (ii).
  - E. Information identifying any deviation from the fuel restriction in Condition 7.3.6(a).
- b. Pursuant to the NSPS, 40 CFR 60.48c and Section 39.5(e) of the Act, the records of the following information related to the oil supply and SO<sub>2</sub> emissions of the affected boiler:
- i. Records of fuel oil supplier certification used to demonstrate compliance with SO<sub>2</sub> standard in Conditions 7.3.4(a) (i), including the information described under 40 CFR 60.48c(f) (1).
  - ii. Records for each shipment of fuel oil received for the affected boiler, including date, supplier, type of oil, quantity (in gallons), sulfur content in lb/mmBtu (or data on maximum sulfur content and minimum heat content as guaranteed by the supplier, and the calculated sulfur content in lb/mmBtu), and whether the SO<sub>2</sub> emission rate from the burning of such fuel would meet the SO<sub>2</sub> emission limit in Condition 7.3.4(b) (i).
  - iii. A. Records for any period of time when the fuel oil fired in the affected boiler had a sulfur content that resulted in SO<sub>2</sub> emissions that exceeded the SO<sub>2</sub> emission limit in Condition 7.3.4(b) (i), and whether the hourly emission rate during such period exceeded the SO<sub>2</sub> limit of Condition 7.3.4(a) (ii), with explanation.
  - B. Records for any 30-day average SO<sub>2</sub> emission rate (lbs/mmBtu) or 30-day average sulfur content (weight percent), determined in accordance with the applicable procedures of 40 CFR 60.45b,

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exceeded the applicable limit of  
Condition 7.3.4(a)(ii).

- C. For the above incidents, a detailed explanation of the cause(s) of noncompliance with the emission standards a detailed description of corrective actions taken.
- c.
  - i. Records of total distillate fuel oil consumed, (gal/day, gal/month, and gal/year).
  - ii. Records of total natural gas consumed (scf/day, scf/mo, and scf/yr)
  - ii. Records of operating hours (hours/day and hours/quarter).
- d. Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (e) of the Act, records related to startup of the affected boiler that include the following:
  - i. Records of the Permittee's startup procedures for the affected boiler (as required by Condition 7.3.3(b)(ii)), accompanied by the Permittee's estimate of opacity levels and both total and excess emissions of PM and CO during a typical startup with supporting information and calculations.
  - ii. Records for each startup of the affected boiler that, at a minimum, include the following:
    - A. Date, time, duration and description of the startup.
    - B. The elapsed time from initial firing of fuel to achievement of stable operation of the boiler with systems operating to enable compliance with the applicable standards for emissions of PM and CO.
    - C. If this elapsed time is more than 18 minutes or if the Permittee's startup procedures are not followed:
      - I. A detailed explanation why startup was not completed sooner or the procedures were not followed.
      - II. Documentation for the procedures that were followed.
      - III. Estimates of the magnitude of opacity and emissions of PM and CO during the

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startup, including whether opacity or emissions may have exceeded an applicable standard, as listed in Condition 7.3.4.

e. Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (e) of the Act, records related to malfunction and breakdown of the affected boiler that include the following:

i. A maintenance and repair log for the affected boiler that, at a minimum, addresses aspects or components of the boiler for which malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or components, with date, description and reason for the activity.

ii. Records for each incident when operation of the affected boiler continued during malfunction or breakdown, including malfunction or breakdown as addressed by Condition 7.3.3(c), that, at a minimum, includes the following information:

A. Date, time, duration and description of the incident.

B. The corrective actions used to reduce the quantity of emissions and the duration of the incident.

C. Confirmation of fulfillment of the requirements of Condition 7.3.10-3(a), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.3.10-3(a)(ii).

D. If opacity or emissions of PM or CO exceeded or may have exceeded an applicable standard, as listed in Condition 7.3.4:

I. A detailed explanation why continued operation of the affected boiler was necessary.

II. The preventative measures that have been or will be taken to prevent similar incidents or reduce their frequency and severity, including any repairs to the affected boiler and associated equipment and any changes to operating and maintenance procedures.



III. Estimates of the magnitude of opacity or emissions of PM and CO during the incident, as emissions may have exceeded any applicable standard.

- f. Records for all opacity measurements made in accordance with USEPA Method 9 for the affected boiler that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations. For each occasion on which such observations are made, these records shall include the identity of the observer, a description of the various observations that were made, the observed opacity, and copies of the raw data sheets for the observations.
- g. To demonstrate compliance with Condition 7.3.6(b)(iii), the Permittee shall maintain the following records related to SO<sub>2</sub>, CO and NO<sub>x</sub> emissions of the affected boiler
  - i. For SO<sub>2</sub>, for any hour in which the equivalent SO<sub>2</sub> emission rate for the oil being fired in the affected boiler exceeds 0.3 lb/mmBtu: (1) The firing rate of the boiler for oil (mmBtu/hr), and (2) The hourly SO<sub>2</sub> emission rate (lbs/hr), determined as the product of the equivalent SO<sub>2</sub> emission rate for the oil and the boiler's firing rate of oil.
  - ii. For CO and NO<sub>x</sub>: (1) The CO and NO<sub>x</sub> emission factors (lb/mmBtu) used by the Permittee to determine emissions from the affected boiler, with supporting documentation, and (2) A demonstration that the maximum hourly CO and NO<sub>x</sub> emissions of the affected boiler, in lbs/hr, (determined as the product of the above emission factors and the maximum design heat input capacity of the boiler) are within the limitations in Condition 7.3.6(b)(iii) for

7.3.10-1 Reporting Requirements - Reporting of Deviations

a. Prompt Reporting of Deviations

For the affected boiler, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. At a minimum, these notifications shall include a description of each deviation, including whether it occurred during startup or malfunction/breakdown, and a discussion of the probable cause of such deviations, any corrective actions taken and any preventative measures taken. [Sections 39.5(7)(a) and (f) of the Act]

- i. Notification and reporting as specified in Conditions 7.3.10(c) for certain deviations from the PM limit in Conditions 7.3.4(b) (i).
- ii. Notification and reporting as specified in Condition 7.3.10(c) for certain deviations from the opacity limit in Condition 7.3.4(a) (iii).
- iii. Notification within 30 days for a deviation from the fuel restriction in Condition 7.3.6(c) (ii), with a copy of the applicable records for such incident.
- iv. Notification with the quarterly reports required by Condition 7.3.10-2(a) for deviations from other applicable requirements, e.g., other applicable emissions standards, work practice requirements, and recordkeeping requirements.

b. Periodic Reporting of Deviations

The quarterly reports required by Condition 7.3.10-2(a) shall include the following information for the affected boiler related to deviations from permit requirements during the quarter. [Sections 39.5(7) (a) and (f) (i) of the Act]

- i. A listing of all instances of deviations that have been reported in writing to the Illinois EPA as provided by Condition 7.3.10-1(a) (i), (ii) and (iii), including identification of each such written notification or report. For this purpose, the Permittee need not resubmit copies of these previous notifications or reports but may elect to supplement such material.
- ii. Detailed information for all other deviations not addressed in the above listing.

7.3.10-2 Reporting Requirements - Periodic Reports

a. Quarterly Reports

In place of the semi-annual monitoring reports otherwise required by NSPS, 40 CFR 60.48c(d) and Condition 8.6.1, the Permittee shall submit quarterly reports to the Illinois EPA pursuant to Sections 39.5(7) (a) and (f) of the Act.

- i. These reports shall include the following information for operation of the affected boiler during the quarter:

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- A. The total operating hours for the affected boiler;
- B. A discussion of significant changes in the fuel supply to the affected boiler, if any, including changes in the source of fuel oil or the maximum rate (mmBtu/hour) at which the boiler will be fired;
- ii. These reports shall include the information related to SO<sub>2</sub> emissions during the quarter specified by Condition 7.3.10-2(b).
- iii. These reports shall include the following information related to startups of the affected boiler during the quarter:
  - A. A listing of each startup, including date, description and "elapsed time," accompanied by a copy of the records pursuant to Condition 7.3.9(d)(ii)(C) for each startup for which such records were required.
  - B. If there have been no startups of the affected boiler during the quarter, this shall be stated in the report.
- iv. These reports shall include the following information for incidents during the quarter in which the affected boiler continued to operate during malfunction or breakdown with excess emissions.
  - A. A listing of such incidents, in chronological order, that includes: (1) the date, time, and duration of each incident, and (2) whether a follow-up notice was submitted for the incident pursuant to Condition 7.3.10(c)(ii), with the date of the notice.
  - B. The detailed information for each such incident required pursuant to Condition 7.3.10(a) (as each incident constitutes a deviation) and Condition 7.3.10(c)(ii). For this purpose, the Permittee need not resubmit information provided in a prior report for an incident, but may elect to supplement the prior submittal.
- v. These reports shall be submitted after the end of every calendar quarter as follows:

Monitoring Period

Submittal Deadline

January - March	April 30
April - June	July 30
July - September	October 30
October - December	January 30

b. Reporting of SO<sub>2</sub> Emissions

Pursuant to the NSPS, 40 CFR 60.48c(d) and Sections 39.5(7)(a) and (f) of the Act the Permittee shall submit reports, related to SO<sub>2</sub> emissions from the affected boiler, including the following information, as applicable with its quarterly reports pursuant to Condition 7.3.10-2(a):

i. The following information for each period when SO<sub>2</sub> emissions were in excess of the applicable standards in Conditions 7.3.4(a)(ii) or (b)(i). When there were no such exceedances, this shall be stated in the report.

A. Calendar dates covered in the reporting period.

B. The actual SO<sub>2</sub> emission rate (lbs/mmBtu), or sulfur content (weight percent and lb/mmBtu) calculated for each period of exceedance; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

C. Fuel supplier certifications for the reporting period as described in 40 CFR 60.48c(f)(1)

D. A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting periods.

7.3.10-3 Reporting Requirements - Notifications

a. Reporting of Continued Operation During Malfunctions And Breakdowns for Affected Boiler

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA, concerning incidents when operation of the affected boiler continued with excess emissions, including continued operation during malfunction or breakdown as addressed by Condition 7.3.3(c). These requirements do not apply to such excess emissions, if any, that occur during startup or shutdown of the affected boiler.

- i. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from the affected boiler exceeds or may have exceeded 20 percent for five or more 6-minute averaging periods unless the Permittee has begun the shutdown of the affected boiler by such time. (Otherwise, as related to opacity, if opacity during an incident only exceeds or may have exceeded 20 percent for no more than four 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.3.10-2(a) (i) (D).)
- ii. Upon conclusion of each incident in which the applicable PM emission standard may have been exceeded or in which the opacity from the affected boiler exceeds or may have exceeded 20 percent for one hour (60 minutes) or more, the Permittee shall submit a follow-up report to the Illinois EPA, Compliance Section and Regional Office, within 15 that includes: a detailed description of the incident and its cause(s); an explanation why continued operation of the affected boiler was necessary; the length of time during which operation continued under such conditions until repairs were completed or the boiler was taken out of service; a description of the measures taken to minimize and correct deficiencies with chronology; and a description of the preventative measures that have been and are being taken.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.3.12 Compliance Procedures

- a. Compliance with the opacity limits in Conditions 7.3.4(a) (iii) and 7.3.4(b) is addressed by opacity testing in accordance Condition 7.3.7-1(a) and the recordkeeping required by Condition 7.3.9.
- b. Compliance with the PM limit of Condition 7.3.4(b) is addressed by the work practices of Condition 7.3.7(a), emission testing in accordance with Condition 7.3.7-1(b), and the recordkeeping required by Condition 7.3.9.
- c. Compliance with the SO<sub>2</sub> limits of Conditions 7.3.4(a) (ii) and (b) (i) and the SO<sub>2</sub> limitations of

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Condition 7.3.6(b) (iii) is addressed by the sampling and analysis required by Condition 7.3.7-2 and the recordkeeping required by Condition 7.3.9.

- d. Compliance with the CO emission limit of Condition 7.3.4(b) and the CO limitation of Condition 7.3.6(b) (iii) is addressed by the work practices required by Condition 7.3.6(a), emission testing in accordance with Condition 7.3.7(b), and the recordkeeping required by Condition 7.3.9.
- e. Compliance with the work practices and operating restrictions required by Condition 7.3.6 is addressed by the recordkeeping required by Condition 7.3.9.
- f. Compliance with the NO<sub>x</sub> limitation of Condition 7.3.6(b) (iii) is addressed by emission testing in accordance with Condition 7.3.7(b) and the recordkeeping required by Condition 7.3.9.

Note: This condition is included in this permit pursuant to Section 39.5(7) (p) (v) of the Act.

## 7.4 Coal Handling Equipment

### 7.4.1 Description

The Permittee transfers and stores coal in a series of operations, including a railcar and barge unloader, conveyor belts (with associated hoppers, diverters, and transfer points), storage piles (with stackers and feeders), and silos. The coal, as supplied by the mine, is first unloaded from railcars and barges, and then transferred either to the storage piles or reclaim via conveyors. During the transfer to the silos the coal is crushed either in the Crusher House (when coming from barges) or in the reclaim crusher (when coming from railcars) (See Section 7.5).

Particulate matter (PM) emissions associated with these operations are controlled by various measures including the moisture content of the coal, application of dust suppressant to the coal, enclosure and covers, and dust collection devices.

### 7.4.2 List of Emission Equipment and Pollution Control Equipment

#### Coal Receiving -Operations

Railcar Unloading and Barge Unloading  
Coal Transfer Conveyors  
Enclosures and Covers, Dust Suppressant Application Systems,  
and Dust Collection Devices

#### Coal Crushing House

Coal Transfer Conveyors  
Enclosures and Covers, Dust Suppressant Application Systems  
and Dust Collection Devices)

#### Coal Storage Operations

Radial Stackers and Outdoor Storage Piles  
Coal Transfer Conveyors  
Coal Storage Silos  
Enclosures and Covers, Dust Suppressant Application System,  
and Dust Collection Devices

### 7.4.3 Applicability Provisions

- a. i. The "affected operations" for the purpose of these unit-specific conditions, are the emission units that are used solely for the purpose of transferring coal or other solid fuel from one location to another or for storage of coal or other solid fuel, without changing the size of the fuel, e.g., by crushing or screening, as described in Conditions 7.4.1 and 7.4.2.

- ii. Certain affected operations, as follows, for which construction, modification or reconstruction commenced after October 24, 1974, are also "affected facilities" for purposes of the New Source Performance Standards (NSPS) for Coal Preparation Plants, 40 CFR 60 Subpart Y, pursuant to 40 CFR 60.250(a) and 60.251. This is because this source processes more than 200 tons per day of coal by breaking or crushing, as addressed by Section 7.5 of this permit. These affected facilities are subject to applicable requirements of the NSPS, 40 CFR 60 Subpart Y and related requirements in the NSPS, 40 CFR 60 Subpart A, General Provisions.
  - A. Coal conveying equipment, i.e., equipment used to convey coal to or remove coal from machinery used to reduce the size of coal or separate coal from refuse.
  - B. Coal storage systems, i.e., any facility used to store coal except for open storage piles.
- b. Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected operation in violation of the applicable requirements of Condition 7.4.4(b) (35 IAC 212.123) in the event of a malfunction or breakdown of an affected operation. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262 as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.
  - i. This authorization only allows such continued operation as related to the operation of the coal-fired boiler as necessary to provide essential service or to prevent injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
  - ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practicable repair the affected operation, remove the affected operation from



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service or undertake other action so that excess emissions cease.

- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.4.9(f) and 7.4.10(b). For this purpose and other related provisions, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected operation out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

#### 7.4.4 Applicable Emission Standards

- a. The affected operations shall comply with the standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected operations, pursuant to 35 IAC 212.301.
- b. The affected operation shall comply with the standard in Condition 5.2.2(b), i.e., 30 percent opacity, which addresses the opacity of the emission of smoke or other particulate matter from the affected operations, pursuant to 35 IAC 212.123.
- c. The affected operations that are also affected facilities subject to the NSPS, i.e., the new conveyors associated with the new crusher (Conveyors 6A, 6B, 6C and 6D) and the coal silos, shall not

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discharge into the atmosphere any gases that exhibit 20 percent opacity or greater, except during periods of startup, shutdown or malfunction as defined by 40 CFR 60.2, pursuant to 40 CFR 60.11(c) and 60.252(c).

7.4.5 Non-Applicability of Regulations of Possible Concern

- a. Affected operations are not subject to 35 IAC 212.321 or 212.322 because of the disperse nature of the operations, as generally addressed by 35 IAC 212.323.

7.4.6 Work Practices, Operational and Production Limits and Emission Limitations

- a.
  - i. The Permittee shall implement and maintain control measures for the affected operations, such as enclosure, natural surface moisture, application of dust suppressant, and use of dust collection devices, that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission control requirements in Conditions 7.4.4 and 7.4.6(b), pursuant to Section 39.5(7) (a) of the Act.
  - ii. The Permittee shall operate and maintain each affected operation with the control measures identified in the records required by Condition 7.4.9(b).
  - iii. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate each affected operation that is subject to the NSPS in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]
- b.
  - i. The amount of coal handled by the upgraded coal handling/processing system shall not exceed 2.6 million tons/year [T1].
  - ii. The PM emissions from individual operations in the upgraded coal handling/processing system shall not exceed the controlled emission factors (lb/ton) and annual emissions (ton/yr), as follows: [T1]

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Operation	Control Measures	Controlled Emission Factor (Lb/Ton)	Emissions (Tons/Year)
Rail Car Unloading	Enclosure, Chemical Suppressant, and Fabric Filter	0.00102	1.33
Conveyors U2 and U3	Enclosure and Wet Suppressant	0.00074	1.92
Radial Stacker	Telescopic Chute and Dust Suppressant	0.001	1.30
Conveyor 5 and 6A	Enclosure and Fogging	0.0004	0.96
Conveyors 6B and 6D	Fogging	0.0012	3.2
Coal Storage Pile	Wet Suppressant	0.00006	0.09
Coal Silos	Enclosure and Fabric Filter	0.0001	0.1
		Total	8.9

- iii. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- iv. The upgraded coal handling/processing system shall be operated in accordance with good operating practices to minimize PM emissions, including the following: [T1]
  - A. Enclosures shall be maintained in good condition and dust suppressant shall be applied as needed whenever coal is being moved past a point of application.
  - B. Dust suppressant shall be applied as needed on the active coal pile to minimize dust emissions from storage pile.
  - C. The telescopic chute shall be maintained and operated to minimize dust emissions, including localized application of suppressant to coal being transferred on conveyor as needed to prevent visible emission from radial stacker.
  - D. Fogging systems and transfer control chutes shall be maintained and operated as needed at each transfer point to minimize dust emissions.
  - E. Remedial actions shall be taken if visible emissions are observed outside of any building or beyond the property line.

Note: The above requirements and limitations were

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established in Construction Permit 04050064 and were intended to ensure that the new and modified emission units addressed in that permit do not constitute a major modification pursuant to federal PSD rules. The limitations were based on information provided in that permit application, including maximum receipts of coal, emission factors and control efficiencies from "Fugitive Emissions From Coal-Fired Power Plants," Electric Power Research Institute, Report Number EPRI CS-3455, Air Pollution Engineering Manual, Air and Waste Management Association, 1992, emissions factors guaranteed by equipment vendors, and AP-42, Section 13.2.4. As these emission limitations address the upgraded coal handling/processing system, these limitations superseded limitations established in Construction Permit 95080014, which addressed a prior configuration of the system.

#### 7.4.7 Opacity and Emission Testing Requirements

a. i. The Permittee shall have the opacity of the emissions from the affected operations during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.

A. For each affected operation, testing shall be conducted at least annually. For this purpose, testing shall first be conducted within three months of the effective date of this Condition.

B. Upon written request by the Illinois EPA, such testing shall be conducted for specific affected operation(s) within 45 calendar days of the request or on the date agreed upon by the Illinois EPA, whichever is later.

ii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.

iii. A. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).

B. The Permittee shall promptly notify the

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Illinois EPA of any changes in the time  
or date for testing.

- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected operations.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b.
  - i. Within 90 days of a written request from the Illinois EPA, the Permittee shall have the PM emissions at the stacks or vents of the affected operations, as specified in such request, measured during representative operating conditions, as set forth below, pursuant to Section 39.5(7)(d) of the Act.
  - ii.
    - A. Testing shall be conducted using appropriate USEPA Reference Test Methods, including Method 5 for PM emissions.
    - B. Compliance may be determined from the average of three valid test runs, subject to the limitations and conditions contained in 35 IAC Part 283.
  - iii. The Permittee shall submit a test plan to the Illinois EPA at least 60 days prior to testing, which plan shall include the information specified by Condition 8.6.2.
  - iv. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a

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minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interferes with the Illinois EPA's ability to observe the testing.

- v. The Permittee shall expeditiously submit complete Final Report(s) for required emission testing to the Illinois EPA, no later than 90 days after the date of testing. These reports shall include the information specified in Condition 8.6.3 and the following information:
  - A. A summary of results.
  - B. Detailed description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - C. Detailed description of the operating conditions of the affected operations during testing, including operating rate (tons/hr) and the control measures being used.
  - D. Detailed data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
  - E. Representative opacity data (6-minute average) measured during testing.

#### 7.4.8 Inspection Requirements

- a. The Permittee shall perform inspections of the affected operations on at least a monthly basis, including associated control measures, while the operations are in use, to confirm compliance with the requirements of Condition 7.4.6(a). These inspections shall be performed with personnel not directly involved in the day-to day operation of the affected operations and may be scheduled so that only a number of affected operations are reviewed during each inspection, provided however, that all affected operations that are in routine service shall be inspected at least once during each calendar month. [Sections 39.5(7) (a) and (d) of the Act.]
- b. The Permittee shall perform detailed inspections of

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the dust collection equipment for the affected operations at least every 15 months while the operations are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the operation is out of service and a follow-up inspection performed after any such activities are completed. [Sections 39.5(7)(a) and (d) of the Act]

#### 7.4.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected operations, pursuant to Sections 39.5(7)(a) and (e) of the Act:

- a. The Permittee shall keep the following file(s) and log(s):
  - i. File(s) containing the following information for the affected operations, with supporting information, which information shall be kept up to date:
    - A. Information related to the dust collection equipment associated with the affected operations, including design control efficiency or performance specifications and maximum design particulate matter emissions, gr/dscf.
    - B. The maximum operating capacity of each affected operation, (ton/hr).
    - C. A list identifying any affected coal conveying equipment or coal storage systems that the Permittee does not consider to be an "affected facility" for purposes of the NSPS, with copies of supporting documentation. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
  - ii. Maintenance and repair log(s) for the air pollution control equipment associated with the affected operations, including dust suppressant application systems, which log(s) shall list the activities performed on each item of equipment or system, with date and description. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
- b. i. The Permittee shall maintain a record, which shall be kept up to date, of the control measures currently being implemented for different affected operations pursuant to

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Condition 7.4.6(a). These control measures, as defined by the Permittee through these records, are referred to as the "established control measures" in this subsection of the CAAPP permit.

- ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures are sufficient to assure compliance with the emission limitations in Condition 7.4.6(b) (1b PM/ton coal and ton PM/yr), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as addressed by Condition 7.4.9(a)(i)(A) or testing conducted pursuant to Condition 7.4.7(b), this demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.
  - iii. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- c. The Permittee shall maintain the following operating records:
- i. The amount of coal and other solid fuels received at the source (tons/month and tons/year, by type of fuel).
  - ii. The amount of coal unloaded from the railcar (tons/month and tons/year).
  - iii. The amount of coal and other solid fuels sent to the outdoor storage piles (tons/month and tons/year, by type of fuel).
- d. The Permittee shall maintain records of the following for the inspections required by Condition 7.4.8:
- i. For the inspections required by Condition 7.4.8(a) for each affected operation:
    - A. Date and time the inspection was performed and name(s) of inspection personnel.
    - B. The observed condition of the control measures for each affected operation, including the presence of any visible emissions.



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- C. A description of any maintenance or repair associated with established control measures that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
  - D. A summary of the observed implementation or status of actual control measures, as compared to the established control measures.
- ii. For the inspections required by Condition 7.4.8(b) for the dust collection equipment for affected operations:
    - A. Date and time the inspection was performed and name(s) of inspection personnel.
    - B. The observed condition of the equipment.
    - C. A summary of the maintenance and repair that is to be or was conducted on the equipment.
    - D. A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
    - E. A summary of the observed condition of the equipment as related to its ability to reliably and effectively control emissions.
- e. The Permittee shall maintain records of the following for each incident when any affected operation operated without the established control measures:
    - i. The date of the incident and identification of the affected operation(s) that were involved;
    - ii. A description of the incident, including the established control measures that were not present or implemented; the established control measures that were in use, if any;

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other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident;

- iii. The time and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel;
  - iv. The length of time after the incident was identified that the affected operation(s) continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation why this time was not shorter, including a description of any mitigation measures that were implemented during the incident;
  - v. The estimated total duration of the incident, i.e., the total length of time that the affected operation(s) ran without established control measures and the estimated amount of coal handled during the incident;
  - vi. A discussion of the probable cause of the incident and any preventative measures taken; and
  - vii. A discussion whether any applicable emission standards, as listed in Condition 7.4.4 or the PM emission limitations in Condition 7.4.6(b) may have been violated during the incident, with an estimate of the amount of any excess PM emissions (lb) and supporting explanation and calculations.
- f. Pursuant to 35 IAC 201.263 and Sections 39.5(7) (a) and (e) of the Act, the Permittee shall maintain records, related to malfunction and breakdown for affected operations that as a minimum, shall include:
- i. Maintenance and repair log(s) for the affected operations that, at a minimum, address aspects or components of such operations for which malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or components, with date, description and reason for the activity. In addition, in the maintenance and repair log(s) for control equipment required by Condition 7.4.9(a)(ii), the Permittee shall also list the reason for the activities that are performed.

- ii. Records for each incident when operation of an affected process continued during malfunction or breakdown, including continued operation with excess emissions as addressed by Condition 7.4.3(b), that include the following information:
  - A. Date and duration of malfunction or breakdown.
  - B. A description of the malfunction or breakdown.
  - C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
  - D. Confirmation of fulfillment of the requirements of Condition 7.4.10(b) (i), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.4.10(b) (i) (B).
  - E. If excess emissions occurred for two or more hours:
    - 1. An explanation why continued operation of the affected operation was necessary.
    - 2. The preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
    - 3. An estimate of the magnitude of excess emissions occurring during the incident.
- g. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected operations that it conducts or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.4.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected operations, the observed opacity, and copies of the raw data sheets for the measurements.

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- h. To demonstrate compliance with Condition 7.4.6(b), the Permittee shall keep records of PM emissions (tons/month and tons/year) from the individual operations and groups of operations subject to emission limitations in Condition 7.4.6(b), based on the above records, with supporting calculations.

#### 7.4.10 Reporting Requirements

##### a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements for affected operations, as follows. Such notifications shall include a description of each incident and a discussion of the probable cause of deviation, any corrective actions taken, and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act.

- i. Notification and reporting as specified in Condition 7.4.10(b) for certain deviations from Condition 7.4.4(b).
  - ii. Notification within 30 days for operation of an affected operation that was not in compliance with applicable requirements in Conditions 7.4.6(a) that continued for more than 12 operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.4.9(e).
  - iii. A. Notification with the quarterly reports required by Condition 7.4.10(b)(ii) for other deviations, including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.
    - B. With the quarterly report, the Permittee shall also address deviations that occurred during the quarter that have been separately reported to the Illinois EPA, with a summary of such deviations. For this purpose, the Permittee need not resubmit the detailed information provided in prior notifications and reports for such deviations.
- b. Reporting of Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois

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EPA, concerning incidents when operation of affected operation(s) continued with excess emissions, including continued operation during malfunction or breakdown as addressed by Condition 7.4.3(b).

- i. A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from an affected operation exceeds or may have exceeded the applicable opacity standard for five or more 6-minute averaging periods. (Otherwise, if opacity during a malfunction or breakdown incident only exceeds or may have exceeded the applicable standard for no more than five 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.4.10(b)(ii).)
- B. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), an explanation why continued operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or the affected operation was taken out of service.
- ii. The Permittee shall submit quarterly reports to the Illinois EPA that include the following information for incidents during the quarter in which affected operations continued to operate during malfunction or breakdown with excess emissions. These reports shall be submitted with the quarterly reports submitted for the coal-fired boiler pursuant to Condition 7.2.10-2(a).
- A. A listing of such incidents, in chronological order, that includes: (1) the date, time, and duration of each incident, (2) the identity of the affected operation(s) involved in the incident, and (3) whether a follow-up notice was submitted for the incident

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pursuant to Condition 7.4.10(b) (i) (B),  
with the date of the notice.

- B. The detailed information for each such incident required pursuant to Condition 7.4.10(a) (as each incident constitutes a deviation) and Condition 7.4.10(b) (i) (B). For this purpose, the Permittee need not resubmit information provided in a prior report for an incident, as identified above, but may elect to supplement the prior submittal.
- C. The aggregate duration of all incidents during the quarter.
- D. If there have been no such incidents during the calendar quarter, this shall be stated in the report.

#### 7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to affected operations without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7)(a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21, for an activity for which a permit is required pursuant to 35 IAC 201.142.

- a. Handling of solid fuels other than coal.
- b. Operation of additional dust suppressant systems.
- c. Operation of additional dust collection equipment.
- d. Operation of replacement dust suppression systems or dust collection equipment that is of equal or greater effectiveness in controlling PM emissions than the device(s) being replaced, as recognized in a Construction Permit for such system or equipment.

#### 7.4.12 Compliance Procedures

- a. Compliance with Condition 7.4.4 is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.4.6(a), 7.4.7, 7.4.8, and 7.4.9, respectively.
- b. Compliance with Condition 7.4.6(a) is addressed by the testing, inspection, and recordkeeping required by Conditions 7.4.7, 7.4.8, and 7.4.9, respectively.

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- c. Compliance with Condition 7.4.6(b) is addressed by the control, testing, inspection and recordkeeping required by Conditions 7.4.6(a), 7.4.7, 7.4.8, and 7.4.9, respectively

Note: This condition is included in this permit pursuant to Section 39.5(7) (p) (v) of the Act.

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## 7.5 Coal Processing Equipment

## 7.5.1 Description

The Permittee prepares or processes coal for use as fuel in Boiler 9 with crushers that reduce the size of the coal. Associated particulate matter (PM) emissions are controlled by various control measures including enclosures and covers, application of dust suppressant to the coal, and dust collection devices.

## 7.5.2 List of Emission Equipment and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Crushers	Crusher House	Enclosures and Covers, Dust Suppressant Application, and Dust Collection Devices
	Reclaim Crusher	Enclosures and Covers, Dust Suppressant Application, and Dust Collection Devices

## 7.5.3 Applicability Provisions

- a.
  - i. For the purpose of these unit-specific conditions, an "affected process" is an individual process emission unit that prepares coal for use as a fuel as described in Conditions 7.5.1 and 7.5.2.
  - ii. Certain affected processes, as follows, for which construction, modification, or reconstruction, commenced after October 24, 1974 are also "affected facilities" for purposes of the New Source Performance Standards (NSPS) for Coal Preparation Plants, 40 CFR 60 Subpart Y, pursuant to 40 CFR 60.250(a) and 60.251. This is because this source processes more than 200 tons per day of coal by breaking or crushing. These affected facilities are subject to applicable requirements of the NSPS, 40 CFR 60 Subpart Y and related requirements in the NSPS, 40 CFR 60 Subpart A, General Provisions.
    - A. Coal processing equipment, i.e., any machinery used to reduce the size of coal or to separate coal from refuse.
- b. Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected process in violation of the applicable requirements of Conditions 7.5.4(b) and (c) in the event of a malfunction or breakdown of the process. This authorization is provided pursuant to 35 IAC



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201.149, 201.161 and 201.262 as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent of injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as related to the operation of the coal-fired boiler as necessary to provide essential service or to prevent injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practicable repair the affected process, remove the affected process from service or undertake other action so that excess emissions cease.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.5.9(e) and 7.5.10(b). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected process out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided

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that the Permittee has fully complied with all terms and conditions connected with such authorization.

#### 7.5.4 Applicable Emission Standards

- a. The affected processes shall comply with the standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected processes, pursuant to 35 IAC 212.301.
- b. The affected processes shall comply with the standard, i.e., 30 percent opacity, in Condition 5.2.2(b), which addresses the opacity of smoke or other particulate matter from the affected processes, pursuant to 35 IAC 212.123.
- c. The affected processes that were constructed or modified after April 14, 1972 shall comply with 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). (See also Attachment 1.) [35 IAC 212.321(a)]
- d. The affected processes that are also affected facilities subject to the NSPS, 40 CFR 60 Subpart Y, i.e., the new crusher, shall not exhibit 20 percent opacity or greater into the atmosphere, except during periods of startup, shutdown and malfunction, as defined in 40 CFR 60.2, pursuant to 40 CFR 60.11(c) and 60.252(c).

#### 7.5.5 Non-Applicability of Regulations of Possible Concern

None

#### 7.5.6 Work Practices, Operational and Production Limits, and Emission Limitations

- a. i. The Permittee shall implement and maintain control measures for the affected processes, such as enclosure, natural surface moisture, application of dust suppressant, and use of dust collection devices, that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission standards in Conditions 7.5.4 and 7.5.6(b), pursuant to Section 39.5(7)(a) of the

Act.

- ii. The Permittee shall operate and maintain each affected process with the control measures identified in the records required by Condition 7.5.9(b) (i).
  - iii. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate each affected process that is subject to the NSPS in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]
- b. i. The PM emissions from the new crusher house in the upgraded coal handling/processing system shall not exceed a controlled emission factor of 0.0011 lb/ton and 1.37 tons/year. Compliance with the annual emission limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- ii. The new crusher house shall be operated in accordance with good operating practices to minimize PM emissions, including the following:  
[T1]
    - A. Enclosures shall be maintained in good condition and dust suppressant shall be applied as needed whenever coal is being moved past a point of application.
    - B. Fogging systems at transfer control chutes shall be maintained and operated as needed at each transfer point to minimize dust emissions.
    - C. The crusher house building shall be maintained as an enclosure for the coal crushing operations to minimize dust emissions.
    - D. Remedial actions shall be taken if visible emissions are observed outside of the crusher house building.

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Note: The above requirements and limitations were established in Permit 04050064 and were intended to ensure that the new and modified units addressed in that permit do not constitute a major modification pursuant to the federal PSD rules. The emission limitation in this permit were based on the information provided in the application, including maximum receipts of coal, emission factors and control efficiency from "Fugitive Emissions From Coal-Fired Power Plants" - Electric Power Research Institute ("EPRI") Report Number EPRI CS-3455, Air Pollution Engineering Manual, Air and Waste Management Association, 1992, Emissions factors guaranteed by equipment vendors, and AP-42, Section 13.2.4. As these emission limits addressed the upgraded coal handling/processing system, these limits superseded limits established in Construction Permit 95080014, which addressed a prior configuration of the coal handling/processing system.

#### 7.5.7 Opacity and Emission Testing Requirements

a. i. The Permittee shall have the opacity of the emissions from the affected processes during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.

A. For each affected process, testing shall be conducted at least annually. For this purpose, testing shall first be conducted within three months of the effective date of this Condition 7.5.7(a).

B. Upon written request by the Illinois EPA, such testing shall be conducted for specific affected process(es) within 45 calendar days of the request or on the date agreed upon by the Illinois EPA, whichever is later.

ii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.

iii. A. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).

B. The Permittee shall promptly notify the

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Illinois EPA of any changes in the time  
or date for testing.

- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected processes.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b. i. Within 90 days of a written request from the Illinois EPA, the Permittee shall have the PM emissions at the stacks or vents of the affected processes, as specified in such request, measured during representative operating conditions, as set forth below, pursuant to Section 39.5(7)(d) of the Act.
- ii. A. Testing shall be conducted using appropriate USEPA Reference Test Methods, including Method 5 for PM emissions.
- B. Compliance may be determined from the average of three valid test runs, subject to the limitations and conditions contained in 35 IAC Part 283.
- iv. The Permittee shall submit a test plan to the Illinois EPA at least 60 days prior to testing, which plan shall include the information specified by Condition 8.6.2.
- iv. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a

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minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interferes with the Illinois EPA's ability to observe the testing.

- v. The Permittee shall expeditiously submit complete Final Report(s) for required emission testing to the Illinois EPA, no later than 90 days after the date of testing. These reports shall include the information specified in Condition 8.6.3 and the following information:
  - A. A summary of results.
  - B. Detailed description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - C. Detailed description of the operating conditions of the affected process during testing, including operating rate (tons/hr) and the control measures being used.
  - D. Detailed data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
  - E. Representative opacity data (6-minute average) measured during testing.

#### 7.5.8 Inspection Requirements

- a. The Permittee shall perform inspections of each affected process on at least a weekly basis, including associated control measures, to confirm compliance with the requirements of Condition 7.5.6(a). These inspections shall be performed with personnel not directly involved in the day-to day operation of the affected processes. [Sections 39.5(7) (a) and (d) of the Act].
- b. The Permittee shall perform detailed inspections of the dust collection equipment for affected processes at least every 15 months while the processes are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the process is out of

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service and a follow-up inspection performed after any such activities are completed [Section 39.5(7) (a) and (d) of the Act].

#### 7.5.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected processes, pursuant to Sections 39.5(7) (a) and (e) of the Act:

- a. The Permittee shall keep the following file(s) and log(s):
  - i. File(s) containing the following information for the affected processes, with supporting information, which information shall be kept up to date:
    - A. Information related to the dust collection equipment associated with the affected processes, including the design control efficiency or performance specifications and maximum design particulate matter emissions, gr/dscf.
    - B. The maximum operating capacity of each affected process (ton/hour).
    - C. A list identifying any affected coal processing equipment that the Permittee does not consider to be an "affected facility" for purposes of the NSPS, with copies of supporting documentation. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
  - ii. Maintenance and repair log(s) for the air pollution control equipment associated with the affected processes, including dust suppressant application systems, which log(s) shall list the activities performed on each item of equipment or system, with date and description. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
- b. i. The Permittee shall maintain a record, which shall be kept up to date, of the control measures currently being implemented for the affected processes pursuant to Condition 7.5.6(a). These control measures, as defined by the Permittee through these records, are referred to as the "established control measures" in this subsection of this permit.

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- ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures are sufficient to assure compliance with the emission limitations in Condition 7.5.6(b) (1b PM/ton coal and ton PM/yr) and with Condition 7.5.4(c) at the maximum process weight rate at which each affected process can be operated (tons coal/hour), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as addressed by Condition 7.5.9(a)(i) or testing of an affected process is conducted in accordance with Condition 7.5.7(b), this demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.
  - iii. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- c. The Permittee shall maintain records of the following for the inspections required by Condition 7.5.8:
- i. For the inspections required by Condition 7.5.8(a) for each affected process:
    - A. Date and time the inspection was performed and name(s) of inspection personnel.
    - B. The observed condition of the control measures for each affected process, including the presence of any visible emissions or visible .
    - C. A description of any maintenance or repair associated with established control measures that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
    - D. A summary of the observed implementation or status of actual control measures as, compared to the established control measures.



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- ii. For the inspections required by Condition 7.5.8(b) for the dust collection equipment for affected processes:
  - A. Date and time the inspection was performed and name(s) of inspection personnel.
  - B. The observed condition of the equipment.
  - C. A summary of the maintenance and repair that is to be or was conducted on the equipment.
  - D. A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
  - E. A summary of the observed condition of the equipment as related to its ability to reliably and effectively control emissions.
- d. The Permittee shall maintain records of the following for each incident when any affected process operated without the established control measures:
  - i. The date of the incident and identification of the affected process(es) that were involved.
  - ii. A description of the incident, including the established control measures that were not present or implemented; the established control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.
  - iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.
  - iv. The length of time after the incident was identified that the affected process(es) continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation why this time was not shorter,

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including a description of any mitigation measures that were implemented during the incident.

- v. The estimated total duration of the incident, i.e., the total length of time that the affected process(es) ran without established control measures and the estimated amount of coal processed during the incident.
  - vi. A discussion of the probable cause of the incident and any preventative measures taken.
  - vii. A discussion whether any applicable emission standards, as listed in, Condition 7.5.4, or a PM limitation in Condition 7.5.6(b) may have been violated during the incident, with an estimate of the amount of any excess PM emissions (lbs) and supporting explanation.
- e. Pursuant to 35 IAC 201.263 and Sections 39.5(7) (a) and (e) of the Act, the Permittee shall maintain records, related to malfunction and breakdown for affected processes that as a minimum, shall include:
- i. Maintenance and repair log(s) for the affected processes that, at a minimum, address aspects or components of such processes for which malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or components, with date, description and reason for the activity. In addition, in the maintenance and repair log(s) for control equipment required by Condition 7.5.9(a)(ii), the Permittee shall also list the reason for the activities that are performed.
  - ii. Records for each incident when operation of an affected process continued during malfunction or breakdown, including continued operation with excess emissions as addressed by Condition 7.5.3(b), that include the following information:
    - A. Date and duration of malfunction or breakdown.
    - B. A description of the malfunction or breakdown.
    - C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
    - D. Confirmation of fulfillment of the

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requirements of Condition 7.5.10(b) (i), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.5.10(b) (i) (B).

- E. If excess emissions occurred for two or more hours:
  - I. A detailed explanation why continued operation of the affected operation was necessary.
  - II. A detailed explanation of the preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
  - III. An estimate of the magnitude of excess emissions occurring during the incident.
- f. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected processes that it conducts or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.5.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.
- g. To demonstrate compliance with Condition 7.5.6(b), the Permittee shall keep records of PM emissions (tons/month and tons/year) from the new crusher house in the upgraded coal handling/processing system, based on the above records, with supporting calculations.

#### 7.5.10 Reporting Requirements

##### a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements for affected processes, as follows. Such notifications shall include a description of each incident and a discussion of the probable cause of deviation, any corrective actions taken, and any preventative measures taken, pursuant to Section 39.5(7) (f) (ii) of the Act.

- i. Notification and reporting as specified in Condition 7.5.10(b)(i) for certain deviations from Condition 7.5.4(b).
- ii. Notification within 30 days for operation of an affected process that was not in compliance with applicable requirements in Condition 7.5.6(a) that continued for more than 12 operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.5.9(e).
- iii. A. Notification with the quarterly reports required by Condition 7.5.10(b)(ii) for other deviations, including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.  
  
B. With the quarterly report, the Permittee shall also address deviations that occurred during the quarter that have been separately reported to the Illinois EPA, with a summary of such deviations. For this purpose, the Permittee need not resubmit the detailed information provided in prior notifications and reports for such deviations.
- b. Reporting of Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA for incidents when operation of affected process(es) continued with excess emissions, including continued operation during malfunction or breakdown as addressed by Condition 7.5.3(b).

- i. A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) during normal working hours for each incident in which the opacity from an affected process exceeds or may have exceeded the applicable opacity standard for five or more 6-minute averaging periods. (Otherwise, if opacity during a malfunction or breakdown incident only exceeds or may have exceeded the applicable standard for no more than five 6-minute averaging periods, the Permittee need only report

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the incident in accordance with Condition 7.5.10(b)(ii).)

- B. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), an explanation why continued operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or the affected process was taken out of service.
- ii. The Permittee shall submit quarterly reports to the Illinois EPA that include the following information for incidents during the quarter in which affected processes continued to operate during malfunction or breakdown with excess emissions. These reports shall be submitted with the quarterly reports submitted for the coal-fired boiler pursuant to Condition 7.2.10-2(a).
  - a. A listing of such incidents, in chronological order, that includes: (1) the date, time, and duration of each incident, (2) the identity of the affected process(es) involved in the incident, and (3) whether a follow-up notice was submitted for the incident pursuant to Condition 7.5.10(b)(i)(B), with the date of the notice.
  - B. The detailed information for each such incident required pursuant to Condition 7.5.10(a) (as each incident constitutes a deviation) and Condition 7.5.10(b)(i)(B). For this purpose, the Permittee need not resubmit information provided in a prior report for an incident, as identified above, but may elect to supplement the prior submittal.
  - C. The aggregate duration of all incidents during the quarter.
  - D. If there have been no such incidents during the calendar quarter, this shall be stated in the report.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to each affected process without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7) (a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21, for an activity for which a permit is required pursuant to 35 IAC 201.142:

- a. Handling of solid fuels other than coal.
- b. Operation of additional dust suppressant systems.
- c. Operation of additional dust collection equipment.
- d. Operation of replacement dust suppression systems or dust collection equipment that is of equal or greater effectiveness in controlling PM emissions than the device(s) being replaced, as recognized in a Construction Permit for such system or equipment.

7.5.12 Compliance Procedures

- a. Compliance with Condition 7.5.4 is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.5.6(a), 7.5.7, 7.5.8, and 7.5.9, respectively.
- b. Compliance with Condition 7.5.6(b) is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.5.6(a), 7.5.7, 7.5.8, and 7.5.9, respectively.

Note: This condition is included in this permit pursuant to Section 39.5(7) (p) (v) of the Act.

7 6 Storage Tank

7.6.1 Description

The Permittee stores gasoline for use in plant vehicles.

7.6.2 List of Emission Equipment and Pollution Control Equipment

Unit	Description	Control Equipment
Tank ST1	Gasoline Storage Tank Capacity 1000 Gallon	Permanent Submerged Loading Pipe

7.6.3 Applicability Provisions

An "affected storage tank" for the purpose of these unit-specific conditions, is the storage tank described in Conditions 7.6.1 and 7.6.2.

7.6.4 Applicable Emission Standards

- a. The affected storage tank is subject to 35 IAC 215.122(b) and 215.583(a)(1), which provide that:
  - i. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201 or unless such tank is a pressure tank as described in 35 IAC 215.121(a) or is fitted with a recovery system as described in 35 IAC 215.121(b)(2) [35 IAC 215.122(b)].

Note: The exception to this standard at 35 IAC 215.122(c) is not applicable because the vapor pressure of gasoline is greater than 17.24 kPa (2.5 psia) at 294.3°K (70°F).

- ii. No person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing facility unless the tank is equipped with a submerged loading pipe [35 IAC 215.583(a)(1)].

7.6.5 Non-Applicability of Regulations of Possible Concern

- a. This permit is issued based on the affected storage tank not being subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels), 40 CFR Part 60, Subpart Kb,

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because the capacity of the affected storage tank is less than 40 cubic meters (10,566 gallons).

- b. This permit is issued based on the affected storage tank not being subject to 35 IAC 215.121 or 215.122(a) because the capacity of the affected storage tank is less than 40,000 gallons.
- c. This permit is issued based on the requirements of 35 IAC 215.583(a)(2) related to transfers of gasoline to a stationary storage tank at a gasoline dispensing facility not being applicable because the affected storage tank is located in Mason County. [35 IAC 215.583(b)]

7.6.6 Work Practices, Operational and Production Limits, and Emission Limitations

- a. The affected storage tank shall be equipped and operated with a submerged loading pipe or an equivalent device approved by the Illinois EPA, pursuant to 35 IAC 215.122(b) and 215.583(a). (The Illinois EPA has not approved use of other equivalent equipment in lieu of a submerged loading pipe.)

7.6.7 Testing Requirements

None

7.6.8 Inspection Requirements

On an annual basis, in the period between March 1 and April 30 of each year, the Permittee shall conduct an inspection of the affected tank and its physical condition and ability to comply with the applicable equipment requirements of Conditions 7.6.6(a), pursuant to Sections 39.5(7)(a) and (d) of the Act.

7.6.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected storage tank, pursuant to Section 39.5(7)(a) and (e) of the Act:

- a. Design information for the capacity of the tank and the presence of a permanent submerged loading pipe.
- b. Operating log(s) or other records for the affected tank that at a minimum, shall include the following:
  - i. Information documenting performance of the inspections that are required by Condition 7.6.8, including date and description of the inspection, confirmation of the adequacy of the specific features of the tank required for control of emissions, and identification of any



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such features that are not in proper working order or otherwise deficient, with recommendations for maintenance, repair or replacement.

- ii. Information identifying deviations from applicable equipment requirements, with a detailed description and explanation.
- c. Maintenance and repair records for the affected storage tank, as related to the repair or replacement of the loading pipe.
- d. Throughput of material, gal/mo and gal/yr, by type of material.

#### 7.6.10 Reporting Requirements

For the affected storage tank, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. Such notifications shall include a description of each incident and a discussion of the probable cause of deviation, any corrective actions taken and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act:

- a. Notification within 30 days for any filling of the affected storage tank that was not in compliance with the requirements of Conditions 7.6.4 or 7.6.6, i.e., that was conducted without a submerged loading pipe.
- b. Notification with the quarterly reports required for the coal-fired boiler by Condition 7.2.10-2(a) for other deviations, including deviations from applicable recordkeeping requirements.

#### 7.6.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected storage tank without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7)(a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or 35 IAC 203.207, as applicable, or for an activity constituting construction or modification as defined in 35 IAC 201.102.

- a. Changes to components related to the submerged loading pipe, including addition of new components and repair and replacement of components.
- b. Changes in the material stored in the affected tank.

7.6.12 Compliance Procedures

- a. Compliance with Conditions 7.6.4(a) is addressed by the use of a submerged loading pipe as required in Condition 7.6.6(a) and by the inspections and recordkeeping required by Condition 7.6.8 and 7.6.9.
- b. Compliance with Condition 7.6.6 is addressed by the inspections and the recordkeeping required by Conditions 7.6.8 and 7.6.9.

Note: This condition is included in this permit pursuant to Section 39.5(7) (p) (v) of the Act.

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## 7.7 Fly Ash Equipment

## 7.7.1 Description

The Permittee operates a fly ash removal system that handles and stores fly ash collected at the coal-fired boilers. Associated particulate matter (PM) emissions are controlled by various control measures including enclosures and dust collection devices.

## 7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit Description	Emission Control Equipment
Fly Ash Conveying System	Dust Control Devices
Fly Ash Silos and Loadouts	Dust Control Devices

## 7.7.3 Applicability Provisions

- a. An "affected process" for the purpose of these unit-specific conditions, is an individual process emission unit as described in Conditions 7.7.1 and 7.7.2.

## 7.7.4 Applicable Emission Standards

- a. The affected processes shall comply with the standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected processes, pursuant to 35 IAC 212.301.
- b. The affected processes shall comply with the standard, i.e. 30 percent opacity, in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected processes, pursuant to 35 IAC 212.123.
- c. The affected processes shall comply with 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). (See also Attachment 1.) [35 IAC 212.321(a)]

## 7.7.5 Non-Applicability of Regulations of Concern

None

7.7.6 Work Practices, Operational and Production Limits, and  
Emission Limitations

- a. i. The Permittee shall implement and maintain control measures for the affected processes, including enclosure and filtration-type dust collection devices, that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission standards in Conditions 7.7.4 and 7.7.6(b), pursuant to Section 39.5(7) (a) of the Act.
- ii. The Permittee shall operate and maintain each affected process with the control measures identified in Condition 7.7.9(b).
- b. i. The PM emissions of the affected processes shall not exceed the following limits. Compliance with these annual limits shall be determined from a running total of 12 months of data, i.e., from the sum of the data for the current month plus the data for the preceding 11 months.:

Process	Control Measure	Limit	
		(Lb/Hr)	(Ton/Yr)
Receiver/Separator	Fabric Filter	0.063	0.2
Fly Ash Receiving Station (Ash/Water Mix Tank)	Fabric Filter	0.063	0.2
Fly Ash Storage Silo	Fabric Filter	0.12	0.2

- ii. The dry fly ash loadout system shall be designed and operated to recover displaced air so that there are no visible emissions of PM to the atmosphere from loadout spout.

Note: The above limitations and requirements were established in Permit 04050064.

7.7.7 Opacity and Emission Testing Requirements

- a. i. The Permittee shall have the opacity of the emissions from the affected processes during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
- A. For each affected process, testing shall be conducted at least annually. For this purpose, testing shall first be conducted within three months after the effective date of this Condition 7.7.7(a).

- B. Upon written request by the Illinois EPA, such testing shall be conducted for specific affected process(es) within 45 calendar days of the request or on the date agreed upon by the Illinois EPA, whichever is later.
- ii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 5.0 percent.
- iii.
  - A. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
  - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected processes.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b.
  - i. Within 90 days of a written request from the Illinois EPA, the Permittee shall have the PM

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emissions at the stacks or vents of the affected processes, as specified in such request, measured during representative operating conditions, as set forth below, pursuant to Section 39.5(7)(d) of the Act.

- ii. A. Testing shall be conducted using appropriate USEPA Reference Test Methods, including Method 5 for PM emissions.
- B. Compliance may be determined from the average of three valid test runs, subject to the limitations and conditions contained in 35 IAC Part 283.
- iii. The Permittee shall submit a test plan to the Illinois EPA at least 60 days prior to testing, which plan shall include the information specified by Condition 8.6.2.
- iv. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interferes with the Illinois EPA's ability to observe the testing.
- v. The Permittee shall expeditiously submit complete Final Report(s) for required emission testing to the Illinois EPA, no later than 90 days after the date of testing. These reports shall include the information specified in Condition 8.6.3 and the following information:
  - A. A summary of results.
  - B. Detailed description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - C. Detailed description of the operating conditions of the affected process during testing, including operating rate (tons/hr) and the control measures being used.
  - D. Detailed data and calculations, including copies of all raw data sheets and records

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of laboratory analyses, sample calculations, and data on equipment calibration.

- E. Representative opacity data (6-minute average) measured during testing.

#### 7.7.8 Inspection Requirements

- a. The Permittee shall perform inspections of the affected processes on at least a weekly basis, including associated control measures, while the affected processes are in use, to confirm compliance with the requirements of Condition 7.7.6(a). These inspections shall be performed by personnel who are not directly involved in the day-to day operation of the affected processes. [Sections 39.5(7) (a) and (d) of the Act]
- b. The Permittee shall perform detailed inspections of the dust collection equipment for affected processes at least every nine months while the processes are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the process is out of service and a follow-up inspection performed after any such activities are completed. [Sections 39.5(7) (a) and (d) of the Act]

#### 7.7.9 Recordkeeping Requirements

The Permittee shall maintain the following records pursuant to Sections 39.5(7) (a) and (e) of the Act:

- a. The Permittee shall keep a record, which shall be kept up to date, of the following:
  - i. Information related to the dust collection equipment associated with the affected processes, including the performance specifications for filter material and maximum design particulate matter emissions, gr/dscf, with supporting documentation.
  - ii. The maximum operating capacity of each affected process, (ton/hour), with supporting documentation.
- b. i. The Permittee shall maintain a record, which shall be kept up to date, of the control measures currently being implemented for the affected processes pursuant to Condition 7.7.6(a). These control measures, as defined by the Permittee through these records, are referred to as the "established control measures" in this subsection of this permit.

- ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures are sufficient to assure compliance with Condition 7.7.4(c) at the maximum process weight rate at which each affected process can be operated (tons/hour) and with the PM emission limitations in Condition 7.7.6(b) (lb/hour and ton/yr), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as addressed by Condition 7.7.9(a) (i) (A) or testing of an affected process is conducted in accordance with Condition 7.7.7(b), this demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.
  - iii. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- c. The Permittee shall maintain records of the following for the inspections required by Condition 7.7.8:
- i. For the inspections required by Condition 7.7.8(a) for each affected process:
    - A. Date and time the inspection was performed and name(s) of inspection personnel.
    - B. The observed condition of the control measures for each affected process, including the presence of any visible emissions or accumulations of ash in the vicinity of the process.
    - C. A description of any maintenance or repair associated with established control measures that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
    - D. A summary of the observed implementation or status of actual control measures, as compared to the established control measures.



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- ii. For the inspections required by Condition 7.7.8(b) for the dust collection equipment for affected processes:
  - A. Date and time the inspection was performed and name(s) of inspection personnel.
  - B. The observed condition of the equipment.
  - C. A summary of the maintenance and repair that is to be or was conducted on the equipment.
  - D. A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
  - E. A summary of the observed condition of the equipment as related to its ability to reliably and effectively control emissions.
- d. The Permittee shall maintain records of the following for each incident when any affected process operated without the established control measures:
  - i. The date of the incident and identification of the affected process(es) that were involved.
  - ii. A description of the incident, including: the established control measures that were not present or implemented; the established control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.
  - iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.
  - iv. The length of time after the incident was identified that the affected process(es) continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation why this time was not shorter,

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including a description of any mitigation measures that were implemented during the incident.

- v. The estimated total duration of the incident, i.e., the total length of time that the affected process(es) ran without established control measures and the estimated amount of material processed during the incident.
  - vi. A discussion of the probable cause of the incident and any preventative measures taken.
  - vii. A discussion whether any applicable emission standard as listed in Condition 7.7.4, or a PM emission in Condition 7.4.6(b), may have been violated during the incident, with an estimate of the amount of any excess PM emissions (lbs) and supporting explanation.
- e. The Permittee shall keep a maintenance and repair log for each item of air pollution control equipment, i.e., each dust suppressant application system and each dust collection device, associated with affected process(es). This log shall list the date and nature of maintenance and repair activities performed on the item of equipment. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
  - f. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected processes that it conducts or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.7.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.
  - g. To demonstrate compliance with Condition 7.4.6(b), the Permittee shall keep records of PM emissions (tons/month and tons/year) from the individual processes subject to limitations in Condition 7.7.6(b), based on the above records, with supporting calculations.

#### 7.7.10 Reporting Requirements

##### a. Reporting of Deviations

For the affected processes, the Permittee shall promptly notify the Illinois EPA of deviations from

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permit requirements as follows. Such notifications shall include a description of each deviation and a discussion of the probable cause, any corrective actions taken and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act:

- i. Notification within 30 days for operation of an affected process that was not in compliance with applicable requirements in Conditions 7.7.6(a) that continued for more than four operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.7.9(d).
- ii. Notification with the quarterly reports required for the coal-fired boiler by Condition 7.2.10-2(a) for other deviations, including deviations from applicable emission standards, inspection requirements, and recordkeeping requirements.

#### 7.7.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected processes without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7)(a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or 35 IAC 203.207, as applicable, or for an activity for which a permit is required pursuant to 35 IAC 201.142.

- a. Operation of additional dust suppressant systems.
- b. Operation of additional dust collection equipment.
- c. Operation of replacement dust suppression systems or dust collection equipment that is of equal or greater effectiveness in controlling PM emissions than the device(s) being replaced, as recognized in a Construction Permit for such system or equipment.

#### 7.7.12 Compliance Procedures

- a. Compliance with Conditions 7.7.4 is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.7.6(a), 7.7.7, 7.7.8, and 7.7.9, respectively.
- b. Compliance with Conditions 7.7.4(c) and (d) is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.7.6(a), 7.7.7,

7.7.8, and 7.7.9, respectively.

- c. Compliance with Condition 7.7.6(a) is addressed by the testing, inspection, and recordkeeping required by Conditions 7.7.7, 7.7.8, and 7.7.9, respectively.
- d. Compliance with Condition 7.4.6(b) is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.4.6(a), 7.4.7, 7.4.8, and 7.4.9, respectively.

Note: This condition is included in this permit pursuant to Section 39.5(7)(p)(v) of the Act.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is an affected source under Title IV of the CAA and is subject to requirements pursuant to Title IV of the CAA. To the extent that the federal regulations promulgated under Title IV are inconsistent with the requirements of this permit, the federal regulations promulgated under Title IV shall take precedence pursuant to Section 39.5(17)(j) of the Act.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA, emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change, and the Permittee provides written

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notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change [Section 39.5(12)(a) of the Act]. This notice shall:

- a. Describe the physical or operational change;
- b. Identify the schedule for implementing the physical or operational change;
- c. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
- d. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
- e. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

#### 8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Conditions 8.6.3 and 8.6.4.

#### 8.6 Reporting Requirements

##### 8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows, unless more frequent submittal of such reports is required in Section 7 of this permit. [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

##### 8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

#### 8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;

- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 General Requirements for Reports

- a. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

- i. Illinois EPA - Air Compliance Section

- Illinois Environmental Protection Agency  
Bureau of Air  
Compliance & Enforcement Section (MC 40)  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

- ii. Illinois EPA - Air Regional Field Office

- Illinois Environmental Protection Agency  
Division of Air Pollution Control  
2009 Mall Street  
Collinsville, Illinois 62234

- iii. USEPA Region 5 - Air Branch (if applicable)

- USEPA (AE - 17J)  
Air & Radiation Division  
77 West Jackson Boulevard  
Chicago, Illinois 60604

- c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

- Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Permit Section (MC 11)  
1021 North Grand Avenue East



P.O. Box 19506  
Springfield, Illinois 62794-9506

8.7 Title I Conditions

Notwithstanding the expiration date on the first page of this CAAPP permit, Title I conditions in this permit, which are identified by a T1, T1N, or T1R designation, remain in effect until such time as the Illinois EPA takes action to revise or terminate them in accordance with applicable procedures for action on Title I conditions. This is because these conditions either: (a) incorporate conditions of earlier permits that were issued by the Illinois EPA pursuant to authority that includes authority found in Title I of the Clean Air Act (T1 conditions), (b) were newly established in this CAAPP permit pursuant to authority that includes such Title I authority (T1N conditions), or (c) reflect a combination of conditions of such previous permits and revisions to those conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule. [Section 39.5(7)(j)(iv) of the Act]
- 9.1.2 In particular, this permit does not alter or affect the following:
- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
  - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance with, or violation of, any applicable requirement to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the Permittee, including, but not limited to, challenging the use of the USEPA's credible evidence rule in the context of any future proceeding consistent with *Clean Air Implementation Project v. EPA*, 150 F3d 1200 (D.C. Circuit 1998).

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application. [Section 39.5(7)(o)(i) of the Act]

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The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless this permit provides for such continued operation consistent with the Act and applicable Board regulations. [Section 39.5(6)(c) of the Act]

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following. [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance; or

- ii. As otherwise authorized by the CAA or the Act;
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

#### 9.4 Fees

The Permittee shall pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto. [Section 39.5(7)(o)(vi) of the Act] Fees shall be paid by check sent to the Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

#### 9.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege. [Section 39.5(7)(o)(iv) of the Act]

#### 9.6 Recordkeeping

##### 9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

##### 9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. [Section 39.5(12)(b)(iv) of the Act]

##### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [Section 39.5(7)(e)(ii) of the Act]

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- b. Other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

#### 9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254 and Section 4(b) of the Act.

#### 9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to: (1) the Illinois EPA, Air Compliance Section, (2) the Illinois EPA, Air Regional Field Office, and (3) USEPA Region 5 - Air Branch. (The addresses for the submittal of these compliance certifications are provided in Condition 8.6.4.)

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

#### 9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act. [Section 39.5(7)(p)(i) of the Act] An example Certification by a Responsible Official is included as an attachment to this permit.

#### 9.10 Defense to Enforcement Actions

##### 9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain

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compliance with the conditions of this permit. [Section 39.5(7) (o) (ii) of the Act]

#### 9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

- i. An emergency occurred as provided in Section 39.5(7) (k) of the Act and the Permittee can identify the cause(s) of the emergency;

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7) (k) (iv) of the Act.

- ii. The permitted source was at the time being properly operated;

- iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

- iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

#### 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

## 9.12 Reopening and Reissuing Permit for Cause

### 9.12.1 Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Section 39.5(7)(o)(iii) of the Act]

### 9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur: [Section 39.5(15)(a) of the Act]

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or that inaccurate statement were made in establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

### 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5)(e) and (i) of the Act.

### 9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information

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claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality. [Section 39.5(7)(o)(v) of the Act]

#### 9.13 Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, other portions of this permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force. [Section 39.5(7)(i) of the Act]

#### 9.14 Permit Expiration and Renewal

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit. [Sections 39.5(5)(l) and (o) of the Act]

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

#### 9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section 39.5(7)(n) of the Act.



## 10.0 ATTACHMENTS

### 10.1 Attachment 1 Emissions of Particulate Matter from New Process Emission Units

35 IAC 212.321 - Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

where:

P = Process weight rate; and  
E = Allowable emission rate; and,

- i. Up to process weight rates of 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

- ii. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

- c. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E

Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

10.2 Attachment 2 Emissions of Particulate Matter from Existing Process Emission Units

35 IAC 212.322 - Process Emission Units for Which Construction or Modification Commenced Prior to April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

where:

P = Process weight rate; and  
E = Allowable emission rate; and,

- i. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

- ii. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

- c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric		English	
P	E	P	E

Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

10.3 Attachment 3 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Official Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Date Signed: \_\_\_\_\_

#### 10.4 Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, [www.epa.state.il.us](http://www.epa.state.il.us). This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

[www.epa.state.il.us/air/caapp/caapp-revising.pdf](http://www.epa.state.il.us/air/caapp/caapp-revising.pdf)

Guidance On Renewing A CAAPP Permit:

[www.epa.state.il.us/air/caapp/caapp-renewing.pdf](http://www.epa.state.il.us/air/caapp/caapp-renewing.pdf)

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

[www.epa.state.il.us/air/caapp/index.html](http://www.epa.state.il.us/air/caapp/index.html)

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit Form (CAAPP Form-199).

Application For A Construction Permit Form (CAAPP Form-199):

[www.epa.state.il.us/air/caapp/199-caapp.pdf](http://www.epa.state.il.us/air/caapp/199-caapp.pdf)

10.5 Attachment 5 - Acid Rain Permit Program

217-782-2113

ACID RAIN PROGRAM  
PERMIT

Dynegy Midwest Generation, Inc.  
Attn: A. Kirk Millis, Designated Representative  
2828 North Monroe Street  
Decatur, Illinois 62526-3269

Oris No.: 891  
IEPA I.D. No.: 125804AAB  
Source/Unit: Havana Power Station/Units 1 through 9  
Date Received: December 12, 2003  
Date Issued: March 21, 2005  
Effective Date: January 1, 2005  
Expiration Date: December 31, 2009

**STATEMENT OF BASIS:**

In accordance with Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program Permit to Dynegy Midwest Generation, Inc. for its Havana Power Station.

**SULFUR DIOXIDE (SO<sub>2</sub>) ALLOCATIONS AND NITROGEN OXIDES (NO<sub>x</sub>) LIMITS FOR EACH AFFECTED UNIT:**

UNIT 1	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		35	35	35	35	35
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				
UNIT 2	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		45	45	45	45	45
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				
UNIT 3	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		35	35	35	35	35
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				
UNIT 4	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		35	35	35	35	35
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				

UNIT 5	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		35	35	35	35	35
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				
UNIT 6	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		35	35	35	35	35
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				
UNIT 7	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		35	35	35	35	35
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				
UNIT 8	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	2005	2006	2007	2008	2009
		35	35	35	35	35
	NO <sub>x</sub> Limit	None (Boiler Does Not Burn Solid Fuel)				
UNIT 9	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73*	2005	2006	2007	2008	2009
		8,805	8,805	8,805	8,805	8,805
	NO <sub>x</sub> Limit	0.46 lb/million Btu (Standard Limit for Phase II Dry Bottom Wall-Fired Boiler)				

\* Also includes return of repowering deduction of 2 allowances, which were returned by USEPA on October 30, 2000.

**PERMIT APPLICATION:** The permit application, including the NO<sub>x</sub> compliance plan, is attached and incorporated as part of this permit. The owners and operators of this source must comply with the standard requirements and special provisions set forth in the application.

**COMMENTS, NOTES, AND JUSTIFICATIONS:** This permit contains provisions related to SO<sub>2</sub> emissions from the affected units and requires the owners and operators to hold SO<sub>2</sub> allowances under the federal Acid Rain program to account for SO<sub>2</sub> emissions from the affected units. An allowance is a limited authorization to emit up to one ton of SO<sub>2</sub> during or after a specified calendar year. The transfer of allowances to and from a unit account does not necessitate a revision to the unit SO<sub>2</sub> allocations denoted in this permit (See 40 CFR 72.84).



This permit contains provisions related to NO<sub>x</sub> emissions requiring Havana Unit 9 to comply with applicable emission limitations for NO<sub>x</sub> under the Acid Rain program. Pursuant to 40 CFR 76, the Illinois EPA is approving NO<sub>x</sub> standard emission limitation compliance plan for Havana Unit 9. The compliance plan is effective for calendar years 2005 through 2009. Under the compliance plan, the annual average NO<sub>x</sub> emission rate for each year for Havana Unit 9, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.7(a)(2), i.e. 0.46 lb/mmBtu for Phase II dry bottom wall-fired boiler.

In addition to the described NO<sub>x</sub> compliance plan for Havana Unit 9, the Havana Units 1 through 9 shall comply with all other applicable requirements of 40 CFR Part 75 and 76, including monitoring of NO<sub>x</sub> emissions, the duty to reapply for a NO<sub>x</sub> compliance plan, and requirements covering excess emissions.

This permit does not affect the source's responsibility to meet all other applicable local, state and federal requirements, including state requirements under 35 Ill. Adm. Code Part 217 Subpart W, which addresses NO<sub>x</sub> emissions from Havana Units 1 through 9.

If you have any questions regarding this permit, please contact Kunj Patel at 217-782-2113.

Donald E. Sutton, P.E.  
Manager, Permits Section  
Division of Air Pollution Control

DES:KMP:jar

cc: Cecilia Mijares, USEPA Region V  
Dean Hayden, IEPA Region 2



## Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR T2.30 and T2.31

This submission is: ☒ New ☐ Revised

### STEP 1

Identify the source by  
plant name, State, and  
ORIS code.

Plant Name	Havana	State	IL	ORIS Code	891
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### STEP 2

Enter the unit ID#  
for every affected  
unit at the affected  
source in column "a."  
For new units, enter the  
requested information in  
columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
1	Yes		
2	Yes		
3	Yes		
4	Yes		
5	Yes		
6	Yes		
7	Yes		
8	Yes		
9	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Havana  
Plant Name (from Step 1)

**STEP 3**

Read the  
standard  
requirements

**Permit Requirements**

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

**Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

**Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

STEP 3,  
Cont'd.

**Nitrogen Oxides Requirements** The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

**Excess Emissions Requirements**

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

**Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

Plant Name (from Step 1)	Havana
--------------------------	--------

Step 3,  
Cont'd.

#### **Liability, Cont'd.**

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

#### **Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

#### **STEP 4**

#### **Certification**

Read the  
certification  
statement,  
sign, and  
date

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name A. Kirk Millis	
Signature <i>A. Kirk Millis</i>	Date 12/8/2003



## Phase II NO<sub>x</sub> Compliance Plan

Page 1 of 1

For more information, see instructions and refer to 40 CFR 76.9

This submission is: ☒ New ☐ Revised

**STEP 1**  
Indicate plant name,  
State, and OWS code  
from NADB, if applicable

Plant Name Havana	State IL	OWS Code 891
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**STEP 2**

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB. If applicable, indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wet-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

	ID# 9 DBW Type	ID# Type	ID# Type	ID# Type	ID# Type	ID# Type
(a) Standard annual average emission limitation of 6.50 lb/mmBtu (for Phase I dry bottom wet-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Standard annual average emission limitation of 6.45 lb/mmBtu (for Phase I tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) EPA-approved early election plan under 40 CFR 76.9 through 1251107 (also indicate above emission limit specified in plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Standard annual average emission limitation of 6.48 lb/mmBtu (for Phase I dry bottom wet-fired boilers)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Standard annual average emission limitation of 6.46 lb/mmBtu (for Phase I tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Standard annual average emission limitation of 6.60 lb/mmBtu (for cell burner boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Standard annual average emission limitation of 6.80 lb/mmBtu (for cyclone boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Standard annual average emission limitation of 6.80 lb/mmBtu (for vertically fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Standard annual average emission limitation of 6.84 lb/mmBtu (for wet bottom boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) NO <sub>x</sub> Averaging Plan (include NO <sub>x</sub> Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(ii)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(ii)(B) with NO <sub>x</sub> Averaging (check the NO <sub>x</sub> Averaging Plan box and include NO <sub>x</sub> Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Havana
Plant Name (From Step 1)

NO<sub>x</sub> Compliance - Page 2

Page 2 of 3

STEP 2, cont'd.

9					
ID#	ID#	ID#	ID#	ID#	ID#
DBW					
Type	Type	Type	Type	Type	Type

(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(i)(B), or (b)(2)

☐
☐
☐
☐
☐
☐

(n) AEL (include Phase I AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)

☐
☐
☐
☐
☐
☐

(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing

☐
☐
☐
☐
☐
☐

(p) Repowering extension plan approved or under review

☐
☐
☐
☐
☐
☐

STEP 3  
Read the standard requirements and certification, enter the name of the designated representative, sign &

Standard Requirements

**General.** This source is subject to the standard requirements in 40 CFR 75.8 (consistent with 40 CFR 75.60(x)(1)). These requirements are listed in the source's Acid Rain Permit.

Special Provisions for Early Election Units

**Nitrogen Oxides.** A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO<sub>x</sub>, as provided under 40 CFR 75.8(a)(2) except as provided under 40 CFR 75.60(x)(4).

**Liability.** The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 75.8 for that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

**Termination.** An approved early election plan shall be in effect only until the earlier of January 1, 2003 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 75.6 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2003 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(h) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO<sub>x</sub> for Phase I units with Group 1 boilers under 40 CFR 75.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO<sub>x</sub> for Phase I units with Group 1 boilers under 40 CFR 75.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

A. Kirk Millis	
Name	
Signature	A. Kirk Millis
Date	12/8/2003

10.6 Attachment 6 - Schedule of Unit-Specific Performance,  
Operational, Maintenance, and Control Technology  
Requirements from the Consent Decree That Apply to  
the Havana Station (Schedule)

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**[Paragraphs 1 through 3 of the Consent Decree are not included in this schedule]**

III. DEFINITIONS

For purposes of this Schedule, the following definitions shall apply:

- 4. A "30-Day Rolling Average Emission Rate" for a Unit shall be expressed as lb/mmBTU and calculated in accordance with the following

procedure: first, sum the total pounds of the pollutant in question emitted from the Unit during an Operating Day and the previous twenty-nine (29) Operating Days; second, sum the total heat input to the Unit in mmBTU during the Operating Day and the previous twenty-nine (29) Operating Days; and third, divide the total number of pounds of the pollutant emitted during the thirty (30) Operating Days by the total heat input during the thirty (30) Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. Each 30-Day Rolling Average Emission Rate shall include all emissions that occur during all periods of startup, shutdown and Malfunction or breakdown within an Operating Day, except as follows:

- a. Emissions and BTU inputs that occur during a period of Malfunction, as specifically defined by Paragraph 25, shall be excluded from the calculation of the 30-day Rolling Average Emission Rate if the Permittee (DMG) provides notice of such Malfunction to EPA and the State in accordance with Paragraph 138 of the Consent Decree;
- b. Emissions of NO<sub>x</sub> and BTU inputs that occur during the fifth and subsequent Cold Start Up Period(s) that occur at a given Unit during any 30-dayperiod shall be excluded from the calculation of the 30-day Rolling Average Emission Rate if inclusion of such emission would result in a violation of any applicable 30-Day Rolling Average Emission Rate and DMG has installed, operated and maintained the SCR in question in accordance with manufacturers' specifications and good engineering practices. A "Cold Start Up Period" occurs whenever there has been no fire in the boiler of the Unit (no combustion of any Fossil Fuel) for a period of six

(6) hours of more. The NO<sub>x</sub> emissions to be excluded during the fifth and subsequent Cold Start Up Period(s) shall be the lesser of (i) those NO<sub>x</sub> emissions emitted during the eight (8) hour period commencing when the Unit is synchronized with a utility electric transmission system and concluding eight (8) hours later, or (ii) those NO<sub>x</sub> emissions emitted prior to the time that the flue gas has achieved the minimum SCR operational temperature specified by the catalyst manufacturer; and

- c. For a Unit that has ceased firing Fossil Fuel, emissions of SO<sub>2</sub> and BTU inputs that occur during any period, not to exceed two (2) hours, from the restart of the Unit to the time the Unit is fired with any coal, shall be excluded from the calculation of the 30-Day Rolling Average Emission Rate.

**[Paragraphs 5 through 7 of the Consent Decree are not included in this schedule]**

8. "CEMS" or "Continuous Emission Monitoring System" means, for obligations

involving NO<sub>x</sub> and SO<sub>2</sub> under the Consent Decree, the devices defined in 40 CFR 72.2 and installed and maintained as required by 40 CFR Part 75.

**[Paragraphs 9 through 12 of the Consent Decree are not included in this schedule]**

13. "DMG" means Dynegy Midwest Generation, Inc.

14. "DMG System" means, solely for purposes of the Consent Decree, the following ten (10) listed coal-fired, electric steam generating Units (with the rated gross MW capacity of each Unit, reported to Mid-America Interconnected Network ("MAIN") in 2003, noted in parentheses), located at the following plants:

- Baldwin Generating Station in Baldwin, Illinois: Unit 1 (624 MW), 2

(629 MW), 3 (629 MW);

- Havana Generating Station in Havana, Illinois: Unit 6 (487 MW);
- Hennepin Generating Station in Hennepin, Illinois: Unit 1 (81 MW), Unit 2 (240 MW);
- Vermilion Generating Station in Oakwood, Illinois: Unit 1 (84 MW), Unit 2 (113 MW);
- Wood River Generating Station in Alton, Illinois: Unit 4 (105 MW), Unit 5 (383 MW).

**[Paragraphs 15 through 24 of the Consent Decree are not included in this schedule]**

25. "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not Malfunctions.

**[Paragraphs 26 and 27 of the Consent Decree are not included in this schedule]**

28. "Nonattainment NSR" means the nonattainment area New Source Review program within the meaning of Part D of Subchapter I of the Clean Air Act, Section 9.1(c) of the Illinois Environmental Protection Act, and regulations thereunder.

**[Paragraphs 29 of the Consent Decree is not included in this schedule]**

30. "NO<sub>x</sub> Allowance" means an authorization or credit to emit a specified amount of NO<sub>x</sub> that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Clean Air Act or a State Implementation Plan.

31. "Operating Day" means any calendar day on which a Unit fires

fuel;

**[Paragraphs 32 through 38 of the Consent Decree are not included in this schedule]**

39. "PM Control Device" means any device, including an ESP or a Baghouse, that reduces emissions of particulate matter (PM).

**[Paragraphs 40 of the Consent Decree is not included in this schedule]**

41. "PM CEMS" or "PM Continuous Emission Monitoring System" means the equipment that samples, analyzes, measures, and provides, by readings taken at frequent intervals, an electronic or paper record of PM emissions.

42. "PM Emission Rate" means the number of pounds of PM emitted per million BTU of heat input (lb/mmBTU), as measured or would be measured by Reference Method 5, (40 C.F.R. 60, Appendix A, Reference Method 5.)

**[Paragraphs 43 of the Consent Decree is not included in this schedule]**

44. "PSD" means Prevention of Significant Deterioration within the meaning of Part C of Subchapter I of the Clean Air Act, Section 9.1(c) of the Illinois Environmental Protection Act and regulations thereunder.

**[Paragraphs 45 and 46 of the Consent Decree are not included in this schedule]**

47. "SO<sub>2</sub> Allowance" means "allowance" as defined at 42 U.S.C. § 7651a(3): "an authorization, allocated to an affected unit by the Administrator of EPA under Subchapter IV of the Act, to emit, during or after a specified calendar year, one ton of sulfur dioxide."

48. "System-Wide Annual Tonnage Limitation" means the limitation on the number of tons of the pollutant in question that may be emitted from the DMG System during the relevant calendar year (i.e., January 1 through December 31), and shall include all emissions of the pollutant emitted during

periods of startup, shutdown, and malfunction or breakdown.

**[Paragraphs 49 of the Consent Decree is not included in this schedule]**

50. "Unit" means collectively, the coal pulverizer, stationary equipment that feeds coal to the boiler, the boiler that produces steam for the steam turbine, the steam turbine, the generator, the equipment necessary to operate the generator, steam turbine and boiler, and all ancillary equipment, including pollution control equipment. An electric steam generating station may comprise one or more Units.

IV. NO<sub>x</sub> EMISSION REDUCTIONS AND CONTROLS

A. NO<sub>x</sub> Emission Controls

51. Beginning 45 days after entry of the Consent Decree, and continuing thereafter, DMG shall commence operation of the SCRs installed at Havana Unit 6 so as to achieve and maintain a 30-Day Rolling Average Emission Rate from each such Unit of not greater than 0.100 lb/mmBTU NO<sub>x</sub>.

**[Paragraphs 52 through 54 of the Consent Decree are not included in this schedule]**

55. Beginning 30 days after entry of the Consent Decree, and continuing thereafter, DMG shall operate each SCR in the DMG System at all times when the Unit it serves is in operation, provided that such operation of the SCR is consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR. During any such period in which the SCR is not operational, DMG will minimize emissions to the extent reasonably practicable.

56. Beginning 45 days from entry of the Consent Decree, DMG shall operate low NO<sub>x</sub> burners ("LNB") and/or Overfire Air Technology ("OFA") on the DMG System Units listed in the table below at all times that the Units are in

operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the LNB and/or the Overfire Air Technology, so as to minimize emissions to the extent reasonably practicable.

DMG System Unit	NO <sub>x</sub> Control Technology
Havana Unit 6	LNB, OFA

B. System-Wide Annual Tonnage Limitations for NO<sub>x</sub>

57. During each calendar year specified in the Table below, all Units in the DMG System, collectively, shall not emit NO<sub>x</sub> in excess of the following System-Wide Annual Tonnage Limitations:

Applicable Calendar Year	System-Wide Annual Tonnage Limitations for NO <sub>x</sub>
2005	15,000 tons
2006	14,000 tons
2007 and each year thereafter	13,800 tons

C. Use of NO<sub>x</sub> Allowances

58. Except as provided in the Consent Decree, DMG shall not sell or trade any NO<sub>x</sub> Allowances allocated to the DMG System that would otherwise be available for sale or trade as a result of the actions taken by DMG to comply with the requirements of the Consent Decree.

59. Except as may be necessary to comply with Section XIV (Stipulated Penalties), DMG may not use NO<sub>x</sub> Allowances to comply with any requirement of the Consent Decree, including by claiming compliance with any emission limitation required by the Decree by using,

tendering, or otherwise applying NO<sub>x</sub> Allowances to offset any excess emissions (i.e., emissions above the limits specified in Paragraph 57).

60. NO<sub>x</sub> Allowances allocated to the DMG System may be used by DMG only to meet its own federal and/or state Clean Air Act regulatory requirements, except as provided in Paragraph 61.

61. Provided that DMG is in compliance with the System-Wide Annual Tonnage Limitations for NO<sub>x</sub> set forth in the Consent Decree, nothing in the Consent Decree shall preclude DMG from selling or transferring NO<sub>x</sub> Allowances allocated to the DMG System that become available for sale or trade solely as a result of:

- a. activities that reduced NO<sub>x</sub> emissions at any Unit within the DMG System prior to the date of entry of the Consent Decree;
- b. the installation and operation of any NO<sub>x</sub> pollution control technology or technique that is not otherwise required by the Consent Decree; or
- c. achievement and maintenance of NO<sub>x</sub> emission rates below a 30-Day Rolling Average Emission Rate of 0.100 lb/mmBTU at Havana Unit 6,

so long as DMG timely reports the generation of such surplus NO<sub>x</sub> Allowances in accordance with Section XII (Periodic Reporting) of the Consent Decree. DMG shall be allowed to sell or transfer NO<sub>x</sub> Allowances equal to the NO<sub>x</sub> emissions reductions achieved for any given year by any of the actions specified in Subparagraphs 61.b or 61.c only to the extent that, and in the amount that, the total NO<sub>x</sub> emissions from all Units within the DMG System are below the System-Wide Annual Tonnage Limitation specified in Paragraph 57 for that year.



62. Nothing in the Consent Decree shall prevent DMG from purchasing or otherwise obtaining NO<sub>x</sub> Allowances from another source for purposes of complying with state or federal Clean Air Act requirements to the extent otherwise allowed by law.

[Paragraphs 63 and 64 of the Consent Decree are not included in this schedule]

E. General NO<sub>x</sub> Provisions

65. In determining Emission Rates for NO<sub>x</sub>, DMG shall use CEMS in accordance with the reference methods specified in 40 C.F.R. Part 75.

V. SO<sub>2</sub> EMISSION REDUCTIONS AND CONTROLS

A. SO<sub>2</sub> Emission Limitations and Control Requirements

66. No later than the dates set forth in the Table below for Havana Unit 6, and continuing thereafter, DMG shall not operate the specified Unit unless and until it has installed and commenced operation of, on a year-round basis, an FGD (or equivalent SO<sub>2</sub> control technology approved pursuant to Paragraph 68) on each such Unit, so as to achieve and maintain a 30-Day Rolling Average Emission Rate of not greater than 0.100 lb/mmBTU SO<sub>2</sub>.

UNIT	DATE
Havana Unit 6	December 31, 2012

[Paragraphs 67 and 68 of the Consent Decree are not included in this schedule]

69. Beginning on the later of the date specified in Paragraph 66 or the first Operating Day of each Unit thereafter, and continuing thereafter, DMG shall operate each FGD (or equivalent SO<sub>2</sub> control technology approved pursuant to Paragraph 68) required by the Consent Decree at all times that the Unit it serves is in operation, provided that such operation of the FGD or equivalent technology is consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the FGD or equivalent technology. During any such period in which the FGD or equivalent technology is not operational, DMG will minimize emissions to the extent reasonably practicable.

**[Paragraphs 70 and 71 of the Consent Decree are not included in this schedule]**

72. No later than 30 Operating Days after entry of the Consent Decree and continuing until December 31, 2012, DMG shall operate Havana Unit 6 so as to achieve and maintain a 30-Day Rolling Average Emission Rate from the stack serving such Unit of not greater than 1.200 lb/mmBtu SO<sub>2</sub> .

**B. System-Wide Annual Tonnage Limitations for SO<sub>2</sub>**

73. During each calendar year specified in the Table below, all Units in the DMG System, collectively, shall not emit SO<sub>2</sub> in excess of the following System-Wide Annual Tonnage Limitations:

Applicable Calendar Year	System-Wide Annual Tonnage Limitations for SO <sub>2</sub>
2005	66,300 tons
2006	66,300 tons

2007	65,000 tons
2008	62,000 tons
2009	62,000 tons
2010	62,000 tons
2011	57,000 tons
2012	49,500 tons
2013 and each year thereafter	29,000 tons

74. Except as may be necessary to comply with Section XIV (Stipulated Penalties), DMG may not use SO<sub>2</sub> Allowances to comply with any requirement of the Consent Decree, including by claiming compliance with any emission limitation required by the Decree by using, tendering, or otherwise applying SO<sub>2</sub> Allowances to offset any excess emissions (i.e., emissions above the limits specified in Paragraph 73).

C. Surrender of SO<sub>2</sub> Allowances

75. For each year specified below, DMG shall surrender to EPA, or transfer to a non-profit third party selected by DMG for surrender, SO<sub>2</sub> Allowances that have been allocated to DMG for the specified calendar year by the Administrator of EPA under the Act or by any State under its State Implementation Plan, in the amounts specified below, subject to Paragraph 76:

Calendar Year	Amount
2008	12,000 Allowances
2009	18,000 Allowances
2010	24,000 Allowances

2011, and each year thereafter	30,000 Allowances
--------------------------------	-------------------

DMG shall make the surrender of SO<sub>2</sub> Allowances required by this Paragraph by December 31 of each specified calendar year.

76. If the surrender of SO<sub>2</sub> allowances required by Paragraph 75 would result in an insufficient number of allowances being available from those allocated to the Units comprising the DMG System to meet the requirements of any Federal and/or State requirements for any DMG System unit, DMG must provide notice to the Plaintiffs of such insufficiency, including documentation of the number of SO<sub>2</sub> allowances so required and the Federal and/or State requirement involved. Unless EPA objects, in writing, to the amounts surrendered or to be surrendered, the basis of the amounts surrendered or to be surrendered, or the adequacy of the documentation, DMG may reduce the number of SO<sub>2</sub> allowances to be surrendered under Paragraph 75 to the extent necessary to allow such DMG System Unit to satisfy the specified Federal and/or State requirement(s). If DMG has sold or traded SO<sub>2</sub> allowances allocated by the Administrator of EPA or a State for the year in which the surrender of allowances under Paragraph 75 would result in an insufficient number of allowances, all sold or traded allowances must be restored to DMG's account through DMG's purchase or transfer of allowances before DMG may reduce the surrender requirements of Paragraph 75 as described above.

77. Nothing in the Consent Decree is intended to preclude DMG from using SO<sub>2</sub> Allowances allocated to the DMG System by the Administrator of EPA under the Act, or by any State under its State Implementation Plan, to meet its own Federal and/or State Clean Air Act regulatory requirements for any Unit in the DMG System.

78. For purposes of this Subsection, the “surrender of allowances” means permanently surrendering allowances from the accounts administered by EPA for all Units in the DMG System, so that such allowances can never be used thereafter to meet any compliance requirement under the Clean Air Act, the Illinois State Implementation Plan, or the Consent Decree.

79. If any allowances required to be surrendered under the Consent Decree are transferred directly to a non-profit third party, DMG shall include a description of such transfer in the next report submitted to EPA pursuant to Section XII (Periodic Reporting) of the Consent Decree. Such report shall: (i) identify the non-profit third-party recipient(s) of the SO<sub>2</sub> Allowances and list the serial numbers of the transferred SO<sub>2</sub> Allowances; and (ii) include a certification by the third-party recipient(s) stating that the recipient(s) will not sell, trade, or otherwise exchange any of the allowances and will not use any of the SO<sub>2</sub> Allowances to meet any obligation imposed by any environmental law. No later than the third periodic report due after the transfer of any SO<sub>2</sub> Allowances, DMG shall include a statement that the third-party recipient(s) surrendered the SO<sub>2</sub> Allowances for permanent surrender to EPA in accordance with the provisions of Paragraph 80 within one (1) year after DMG transferred the SO<sub>2</sub> Allowances to them. DMG shall not have complied with the SO<sub>2</sub> Allowance surrender requirements of this Paragraph until all third-party recipient(s) shall have actually surrendered the transferred SO<sub>2</sub> Allowances to EPA.

80. For all SO<sub>2</sub> Allowances surrendered to EPA, DMG or the third-party recipient(s) (as the case may be) shall first submit an SO<sub>2</sub> Allowance transfer request form to EPA’s Office of Air and Radiation’s Clean Air Markets Division directing the transfer of such SO<sub>2</sub> Allowances to

the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, DMG or the third-party recipient(s) shall irrevocably authorize the transfer of these SO<sub>2</sub> Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the SO<sub>2</sub> Allowances being surrendered.

81. The requirements in Paragraphs 75 and 76 of the Decree pertaining to DMG's surrender of SO<sub>2</sub> Allowances are permanent injunctions not subject to any termination provision of the Decree.

E. General SO<sub>2</sub> Provisions

82. In determining Emission Rates for SO<sub>2</sub>, DMG shall use CEMS in accordance with those reference methods specified in 40 C.F.R. Part 75.

VI. PM EMISSION REDUCTIONS AND CONTROLS

A. Optimization of PM Emission Controls

83. Beginning ninety (90) days after entry of the Consent Decree, and continuing thereafter, DMG shall operate each PM Control Device on each Unit within the DMG System to maximize PM emission reductions at all times when the Unit is in operation, provided that such operation of the PM Control Device is consistent with the technological limitations, manufacturer's specifications and good engineering and maintenance practices for the PM Control Device. During any periods when any section or compartment of the PM control device is not operational, DMG will minimize emissions to the extent reasonably practicable. Specifically, DMG shall, at a minimum, to the extent reasonably practicable: (a) energize each section of the ESP for each unit, where applicable, operate each compartment of the Baghouse

for each unit, where applicable (regardless of whether those actions are needed to comply with opacity limits), and repair any failed ESP section or Baghouse compartment at the next planned Unit outage (or unplanned outage of sufficient length); (b) operate automatic control systems on each ESP to maximize PM collection efficiency, where applicable; (c) maintain and replace bags on each Baghouse as needed to maximize collection efficiency, where applicable; and (d) inspect for and repair during the next planned Unit outage (or unplanned outage of sufficient length) any openings in ESP casings, ductwork and expansion joints to minimize air leakage.

84. Within two hundred seventy (270) days after entry of the Consent Decree, for each DMG System Unit served by an ESP or Baghouse, DMG shall complete a PM emission control optimization study which shall recommend: the best available maintenance, repair, and operating practices and a schedule for implementation of such to optimize ESP or Baghouse availability and performance in accordance with manufacturers' specifications, the operational design of the Unit, and good engineering practices. DMG shall retain a qualified contractor to assist in the performance and completion of each study and shall implement the study's recommendations in accordance with the schedule provided for in the study, but in no event later than the next planned Unit outage or 180 days of completion of the optimization study, whichever is later. Thereafter, DMG shall maintain each ESP and Baghouse as required by the study's recommendations or other alternative actions as approved by EPA. These requirements of this Paragraph shall also apply, and these activities shall be repeated, whenever DMG makes a major change to a Unit's ESP, installs a new PM Control Device, or changes the fuel used by a Unit.

**B. Installation of New PM Emission Controls**

85. No later than the dates set forth in the Table below Havana Unit 6, and continuing thereafter, DMG shall not operate the specified Unit unless and until it has installed and commenced operation of a Baghouse on each such Unit so as to achieve and maintain a PM emissions rate of not greater than 0.015 lb/mmBTU.

Unit	Date
Havana Unit 6	December 31, 2012

C. Upgrade of Existing PM Emission Controls

86. At each Unit listed below, no later than the dates specified, and continuing thereafter, DMG shall operate ESPs or alternative PM control equipment at the following Units to achieve and maintain a PM emissions rate of not greater than 0.030 lb/mmBTU:

Unit	Date
Havana Unit 6	December 31, 2005

In the alternative and in lieu of demonstrating compliance with the PM emission rate applicable under this Paragraph, DMG may elect to undertake an upgrade of the existing PM emissions control equipment for any such Unit based on a Pollution Control Equipment Upgrade Analysis for that Unit. The preparation, submission, and implementation of such Pollution Control Equipment Upgrade Analysis shall be undertaken and completed in accordance with the compliance schedules and procedures as specified in Paragraph 88.

87. DMG shall operate each ESP (on Units without a Baghouse) and each Baghouse in the DMG System at all times when the Unit it serves is in operation, provided that such operation of the ESP or Baghouse is consistent with the technological limitations, manufacturers' specifications, and good



engineering and maintenance practices for the ESP or Baghouse. During any such period in which the ESP or Baghouse is not operational, DMG will minimize emissions to the extent reasonably practicable. Notwithstanding the foregoing sentence, DMG shall not be required to operate an ESP on any Unit on which a Baghouse is installed and operating, unless DMG operated the ESP during the immediately preceding stack test required by Paragraph 89.

**[Only subparagraph (c) in Paragraph 88 of the Consent is included in this schedule]**

- c. Beginning one (1) year after EPA and the State of Illinois approve the recommendation(s) made in a Pollution Control Equipment Upgrade Analysis for a Unit, DMG shall not operate that Unit unless all equipment called for in the recommendation(s) of the Pollution Control Equipment Upgrade Analysis has been installed. An installation period longer than one year may be allowed if DMG makes such a request in the Pollution Control Equipment Upgrade Analysis and EPA and the State of Illinois determine such additional time is necessary due to factors including but not limited to the magnitude of the PM control project or the need to address reliability concerns that could result from multiple Unit outages within the DMG System. Upon installation of all equipment recommended under an approved Pollution Control Equipment Upgrade Analysis, DMG shall operate such equipment in compliance with the recommendation(s) of the approved Pollution Control Equipment Upgrade Analysis, including compliance with the PM Emission Rate specified by the recommendation(s).

**D. PM Emissions Monitoring**

1. PM Stack Tests.

89. Beginning in calendar year 2005, and continuing in each calendar year thereafter, DMG shall conduct a PM performance test on each DMG System Unit. The annual stack test requirement imposed on each DMG System Unit by this Paragraph may be satisfied by stack tests conducted by DMG as required by its permits from the State of Illinois for any year that such stack tests are required under the permits. DMG may perform testing every other year, rather than every year, provided that two of the most recently completed test results from tests conducted in accordance with the methods and procedures specified in Paragraph 90 demonstrate that the particulate matter emissions are equal to or less than 0.015 lb/mmBTU. DMG shall perform testing every year, rather than every other year, beginning in the year immediately following any test result demonstrating that the particulate matter emissions are greater than 0.015 lb/mmBTU.

90. The reference methods and procedures for determining compliance with PM Emission Rates shall be those specified in 40 C.F.R. Part 60, Appendix A, Method 5, or an alternative method that is promulgated by EPA, requested for use herein by DMG, and approved for use herein by EPA and the State of Illinois. Use of any particular method shall conform to the EPA requirements specified in 40 C.F.R. Part 60, Appendix A and 40 C.F.R. § 60.48a (b) and (e), or any federally approved method contained in the Illinois State Implementation Plan. DMG shall calculate the PM Emission Rates from the stack test results in accordance with 40

C.F.R. § 60.8(f). The results of each PM stack test shall be submitted to EPA and the State of Illinois within 45 days of completion of each test

## 2. PM CEMS

91. DMG shall install and operate PM CEMS in accordance with Paragraphs 92 through 96. Each PM CEMS shall comprise a continuous particle mass monitor measuring particulate matter concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert the concentration to units of lb/mmBTU. DMG shall maintain, in an electronic database, the hourly average emission values produced by all PM CEMS in lb/mmBTU. DMG shall use reasonable efforts to keep each PM CEMS running and producing data whenever any Unit served by the PM CEMS is operating.

92. DMG shall operate each PM CEMS in accordance with the following plans and protocols approved by EPA and the State of Illinois in accordance with Paragraph 92 of the Consent Decree. (a) a plan for the installation and certification of each PM CEMS; and (b) a proposed Quality Assurance/Quality Control (“QA/QC”) protocol that shall be followed in calibrating such PM CEMS.

**[Paragraphs 93 of the Consent Decree is not included in this schedule]**

94. No later than ninety (90) days after DMG begins operation of the PM CEMS, DMG shall conduct tests of each PM CEMS to demonstrate compliance with the PM CEMS installation and certification plan submitted to and approved by EPA and the State of Illinois in accordance with Paragraph 92.

95. DMG shall operate the PM CEMS for at least two (2) years on each of the Units specified in Paragraph 93. After two (2) years of operation, DMG shall not be required to

continue operating the PM CEMS on any such Units if EPA determines that operation of the PM CEMS is no longer feasible. Operation of a PM CEMS shall be considered no longer feasible if (a) the PM CEMS cannot be kept in proper condition for sufficient periods of time to produce reliable, adequate, or useful data consistent with the QA/QC protocol; or (b) DMG demonstrates that recurring, chronic, or unusual equipment adjustment or servicing needs in relation to other types of continuous emission monitors cannot be resolved through reasonable expenditures of resources. If EPA determines that DMG has demonstrated pursuant to this Paragraph that operation is no longer feasible, DMG shall be entitled to discontinue operation of and remove the PM CEMS.

### 3. PM Reporting

96. Following the installation of each PM CEMS, DMG shall begin and continue to report to EPA, the State of Illinois, and the Citizen Plaintiffs, pursuant to Section XII (Periodic Reporting), the data recorded by the PM CEMS, expressed in lb/mmBTU on a 3-hour rolling average basis in electronic format, as required by Paragraph 91. 33

#### E. General PM Provisions

**[Paragraphs 97 of the Consent Decree is not included in this schedule]**

### VII. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS

98. Emission reductions that result from actions to be taken by DMG after entry of the Consent Decree to comply with the requirements of the Consent Decree shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a netting credit under the Clean Air Act's Nonattainment NSR and PSD programs.

99. The limitations on the generation and use of netting credits or offsets set forth in the previous Paragraph 98 do not apply to emission reductions achieved by DMG System Units that are greater than those required under the Consent Decree. For purposes of this Paragraph, emission reductions from a DMG System Unit are greater than those required under the Consent Decree if, for example, they result from DMG compliance with federally enforceable emission limits that are more stringent than those limits imposed on DMG System Units under the Consent Decree and under applicable provisions of the Clean Air Act or the Illinois State Implementation Plan.

[Paragraphs 100 through 118 of the Consent Decree are not included in this schedule]

## XII. PERIODIC REPORTING

119. Within one hundred eighty (180) days after each date established by the Consent Decree for DMG to achieve and maintain a certain PM Emission Rate at any DMG System Unit, DMG shall conduct a performance test for PM that demonstrates compliance with the Emission Rate required by the Consent Decree. Within forty-five (45) days of each such performance test, DMG shall submit the results of the performance test to EPA, the State of Illinois, and the Citizen Plaintiffs at the addresses specified in Section XIX (Notices) of the Consent Decree.

[Paragraphs 120 and 124 of the Consent Decree are not included in this schedule]

125. If any SO<sub>2</sub> Allowances are surrendered to any third party pursuant to the Consent Decree, the third party's certification pursuant to Paragraph 79 shall be signed by a managing officer of the third party and shall contain the following language:

I certify under penalty of law that, \_\_\_\_\_ [name of third party] will not sell, trade, or otherwise exchange any of the allowances and will not use any of the allowances to meet any obligation imposed by any environmental law. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States.

**[Paragraphs 126 through 153 of the Consent Decree are not included in this schedule]**

## XVII. PERMITS

**[Paragraphs 154 through 156 of the Consent Decree are not included in this schedule]**

157. Notwithstanding the Permit Shield provided in Condition 8.1 of the CAAPP Permit to which this Schedule is attached, any term or limit established by or under this Schedule is also enforceable under the Consent Decree regardless of whether such term is or will become part of the CAAPP Permit, as provided by Paragraph 157 of the Consent Decree.

**[Paragraphs 158 and 181 of the Consent Decree are not included in this schedule]**

182. Every term expressly defined by this Schedule shall have the meaning given to that term by the Schedule and, except as otherwise provided in the Schedule, every other term used in the Schedule that is also a term under the Clean Air Act or the regulations implementing the Clean Air Act shall mean in the Schedule what such term means under the Clean Air Act or those implementing regulations.

183. Nothing in this Schedule is intended to, or shall, alter or waive any applicable law (including but not limited to any defenses, entitlements, challenges, or clarifications related to the Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997)) concerning the use of data for any purpose under the Act.

184. Each limit and/or other requirement established by or under this Schedule is a separate, independent requirement.

185. Performance standards, emissions limits, and other quantitative standards set by or under this Schedule must be met to the number of significant digits in which the standard or limit is expressed. For example, an Emission Rate of 0.100 is not met if the actual Emission Rate is 0.101. DMG shall round the fourth significant digit to the nearest third significant digit, or the third significant digit to the nearest second significant digit, depending upon whether the limit is expressed to three or two significant digits. For example, if an actual Emission Rate is 0.1004, that shall be reported as 0.100, and shall be in compliance with an Emission Rate of 0.100, and if an actual Emission Rate is 0.1005, that shall be reported as 0.101, and shall not be in compliance with an Emission Rate of 0.100. DMG shall report data to the number of significant digits in which the standard or limit is expressed.

**[Paragraphs 186 through 196 and Attachments of the Consent Decree are not included in this schedule]**

10.7 Attachment 7 - Consent Decree in *United States of America and the State of Illinois, American Bottom Conservancy, Health and Environmental Justice-St. Louis, Inc., Illinois Stewardship Alliance, and Prairie Rivers Network, v. Illinois Power Company and Dynegy Midwest Generation Inc.*, Civil Action No. 99-833-MJR, U.S. District Court, Southern District of Illinois, as initially entered by the Court on May 27, 2005 (Decree)

Note:

For administrative convenience, Attachment 7 is not incorporated into this draft of a revised proposed permit.

This attachment is available, as a separate document, with the draft of revised proposed permit for Dynegy's Baldwin plant at either,

[http://yosemite.epa.gov/r5/il\\_permt.nsf/1187a64140e3f8ad862568b700763ce9/603884da715c88a585256f88005067f4!OpenDocument](http://yosemite.epa.gov/r5/il_permt.nsf/1187a64140e3f8ad862568b700763ce9/603884da715c88a585256f88005067f4!OpenDocument)

or at <http://www.epa.gov/region5/air/permits/ilonline.htm>  
(under Title V Permit Records, look for Dynegy, Baldwin plant.)

This document can also be found at the following US District Court's website:

<http://www.ilsd.uscourts.gov/Forms/dmgfinal-cd.pdf>